Notes Taken From a Course of Lectures on the Materia Medica Delivered in the University of Pennsylva By J. R. Coxe M.D. Professor.

The Dr divides the materia medica into three divisions

1 Sidantia
2 Insidantia
3 Nutrientia

The first comprehending all evacuants. The Dr commences his observation on the subject of Blood Letting as a prompt evacuant—

2.

Lecture Delivered Nov 27. 1824

Blood Letting —

Many persons have supposed that particular seasons of the year and even particular parts of the day, are more favorable to the operation of venesection than at other times — and many persons will not allow blood letting at one time but will willingly submit to it at a more auspicious period — some are bled in the spring others again in the autumn but unless this plan has been long habituated it is very improper because when the discharge is once established it will be a dangerous practice to omit the operation A strong objection to the practice of bleeding to prevent diseases is that it becomes less powerful when disease really invades the system In this respect it resembles opium and some other remedies it loses its power by use

A[illegible] is no objection to bleeding: Dr Rush exposed the fallacy of those persons who suppose to the contrary as it may be necessary to bleed infants a few months old and it has been done.

It is difficult to account for syncope for it often occurs in strong healthy persons who have lost but a very small quantity of blood; and it sometimes continues for a very considerable period — Many circumstances will depend on the quantity of blood that should be drawn at once, the degree of pain, inflammation the state of the pulse and respiration &c — —

Galen has given cases in which he has drawn off very large quantities at a time as three pints in one case, in another forty six ounces. In Dr Dorseys Surgery a case is related where five pounds of blood was drawn in opthalmia.

Dr Physick lost one hundred an ten ounces in an attack of yellow fever

Dr Dennis takes ninty ounces at once in convulsions &c — —

The Dr mentions then cases to take the pears which might arise lest nature could not restore the blood after so much has been lost and he even mentions much larger quantities taken at a time than those mentioned above.

Intermittents and sometimes fevers bleeding is requisite and it is often necessary in addition to general bleeding to take blood away topically —

But Bleeding is not to often required in Intermittents as in some other diseases. so long as the pulse requires venesection so long are we to detract blood.

In Pneumonia it is almost the only beneficial and effectual remedy and venesection from the arm is as advantageous as from the jugular vein or any other part, because it is taken from the general circulation and is as effectually from one part as an other.

In Mania the Dr recommends blood letting

We are too little acquainted with Cynanche malegna to decide whether blood letting is proper. the inflammatory stage is so short that it must be at a very early stage if used - The Dr says he has found it useful.

In Cynanche Trachealis that it is perhaps the only effectual remedy whether Spasmodic or inflammatory, and we are to be governed by the relief afforded by venesection in this disease rather than to depend on the pulse - The Dr mentions his own case and that of Several of his children. in one of his children the face was livid. with great difficulty of breathing - eight

or the one is not taken which cures the disease - the pneumonia returning the blood again and again as the pneumonia developed. The Dr. is fully justifiable if the utility in Consumption in any other disease - In the early stages emetics or some slight medicine may cure it but in the advanced stages we can only resort to venesection - when the affection is slight we may make use of topical blood letting with advantage

In ~~Cynanche~~ Cynanche Parotidea or the mumps the established efficacy of blood letting is undoubtedly great - Blood letting acts in some diseases as an antidote

In any case of phlegmasia we are to draw blood —

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Blood Letting Continued —

In no disease is bleeding of more importance than in pneumonia one bleeding must not be too sparingly for what would be considered as a very large bleeding in other complaints would be but a moderate one in this

In many of these cases the pulse is suspended and rises after the operation even in the last moments of expiring

nature it smooths the prospect of death — In Hepatitis the Sonde may be used nearly as in pneumonia when in chronic Hepatitis it is often of great advantage for in these cases any existing Coats may change it into an acute form and indeed it may be said that in any case of phlegmasia the Lancet is our first and last resource —

In gout there has been much dispute upon the subject of blood letting but in many cases we derive much benefit from it. Half of what Dr Rush has said in favour be true it is one of our most important remedies. She stops it allays pain, prevents the formation of calculous stones & shortens the fit — In many of the Eruptive fevers we must judge altogether upon the circumstances of the case

In acute Rheumatism this treatment is generally adopted —

Bowdoin in his treatise on the pulse, questions the utility of bleeding in Rheumatism. She says it may reduce the force of the circulation for a time but it returns again with vigour — The arguments of Bowdoin may be met with advantage

In Hemoptysis nothing should be left to nature we must assist the pulse below the natural stone down and repeated bleedings are most obj decidedly — In violent cases of men orrhagia bleeding is demanded

In Hemiplegia if there is high action bleeding may be the best remedy but sometimes the discharge is so great that no further depletion can be borne -

In Apoplexy bleeding is obviously the best remedy and the most certain one. I have already said so much against the fear of debility arising from long evacuations when properly conducted. on the contrary it is a remedy against debility because it prevents congestion.

Death and strength are by no means synonimous terms in apoplexy the blood should not only be abstracted largely but rapidly from a large orifice it is as powerful from the arm as it is from the jugular vein and topical bleeding is always of great service -

In Palsy we must depend on the symptoms

In Spasmodic complaints we must

also bled if required and vice versa
In Hydrothorax and in Tetanus it is
said that blood letting is beneficial
& is also one the means of treat-
ment. One thing has been too little
adverted to in these diseases — I pre-
sume that there is a certain period
which if the patient can survive he
will live but from one insufficient
cause dies the patient dies upon the
one reach this period —
Mercury is too slow in its action
In short I need not tell you that
no remedy is so powerful as vene-
section why may we not employ the
means when death is staring us
in the face? And can we do worse
than the disease. It will time we
has no doubt been productive of
injury but we must not judge of
a remedy by its abuse —
If conclusions are sorted in the sanc-
tion files what remedy is so effec-
tual as blood letting The Dr does
not mean to say in all cases it is
there an end but we must judge
from circumstances — any considera-
tion leads us to doubt the measures
in tetanus — in Shattuck's surgery in the
Eclectic repository we find the good effect
of venesection in tetanus —

The Dr remarks that emeticks can be compared to no other remedy in the cure of many diseases

There are some circumstances which contra indicate its use -

1st Actual debility

2nd. In certain cases of fever in which reaction has taken place with such violence as to produce debility on this subject consult Rush

3rd - In the last stages of some of the phlegmasia.

4th At the close of a severe fever (bleeding) will generally be considered as improper -

5th. After wounds in which there has been much loss of blood before the system reacts -

6th In accidents or diseases in persons of intemperate habits -

7th. Very fat persons will sometimes be unable to bear bleeding to much extent -

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Blood Letting Continued

In local inflammations we often found out the utility of local bleeding; this may be effected by scarifications. cups or leeches - The term of scarification is used in a different sense from what

It is when we speak of it in general
in the latter case we make leaps
to evacuate the watery fluid
It is only cutting the small vessels
of the part — Cupping is upon the
principal of atmospheric pressure
this plan is of very ancient date and
is undoubtably of great service in
gout and rheumatism and pleurisy
Even dry cupping is often of benefit
alone

Of the instruments which cups &
scarificators can not be had take
wine glasses and a common bowie knife

Leeches are of a modern introduction
into the U. States. though they
have been long known in Europe &
the tunica practice of Europe will
not answer in our diseases we
must therefore be guided by our
own experience. Some parts may
be leeched when it would be
improper to apply cups. they create
less pain than the application of
cups. but they generally will not
take hold unless the parts are very
clean — The principal is the same
as cupping the animal creates
a vacuum by means of its mouth
and pierces with its teeth —

After the leeches are done we may draw more blood from the part by means of cups — A middling sized leech will draw about ℥i of blood — Sometimes hemorrhage takes place from the bites of these animals but it can generally be stopped with alcohol — If they are swallowed copious draughts of salt and water is perhaps the best remedy —

Leeches may serve as a substitute for the lancet in very young children and they should be used even if the child is but only a few days old or even hours —

There has been doubt as to it is stated produced by leeches when the person used is bathing —

The Dr concludes his remarks on the subject of blood letting by stating that we ought to be sparing or fool hardy in the use of blood letting —

Emetics –

By some writers they are said to be those medicines which promote a discharge from the stomach upwards independent of the quantity but the Dr. refutes and says this is wrong because they have other properties as tonics &c. Tartar emetic in small doses is a sedorifie – In some cases even when there is nothing in the stomach they act fully and produce all their good effects – The administration of an Emema is sometimes necessitated by the mouth. this is owing to the peristaltic motion in a retrograde direction of the whole alimentary canal.

Vomiting is the result of a spetic action arising from a discharge in the healthy state of the stomach produced by the action of the vital principal the action received is a mere indirect agent – Vomiting is also excited when nothing has been taken into the stomach as tickling the fauces with a feather

The Dr believes the stomach has the power of ejecting its contents as in other words by its own peristaltic motion

Keys then opened the body during vomiting and saw the muscular fibres

contracting. In many cases he believes the stomach would burst if it were not for them. indeed it has occurred - Mongin has repeated these experiments and so did some of the pupils of this school

The stomach and the assophagus has in themselves an antiperistaltic motion - in these cases when it not so. we could produce vomiting merely by pressing on the stomach. Thedor add that Dowin when he supposes that the action of the muscular fibres of the stomach has gone to the opposite extremes — we find that a certain quantity is necessary to produce the action and it requires a certain time neither does it matter if more is taken into the stomach or not.

The patient ~~is~~ often feels a chilliness. the action of the heart and arteries are diminished & the salivary glands pour out copious flowing the mouth.

During the action the pulse beats stronger the face flushed &c. but after the action the paleness again occurs and gradually the system returns to its previous state

Sometimes the sulphate of Zinc produces ~~is~~ vomiting without much nausea - but Tobacco

occasions a great deal. we must explain the great debility often produced by the sympathy of the stomach and muscular system.

Tartar emetic in health is by no means a safe practice as they are exhibited by the ancients - For they tell boys that when pleathora is present in these cases reduction was previously wanted to previous to the administration of emetics. The practice of giving emetics in fever is as old as Hippocrates -

Lecture December 2 -

Application of Emetics -

Tartar emetic and specacuanha in combination is a valuable emetic.

They are useful 1 - In febrile diseases they are very important -

Bleeding often facilitates the operation of emetics and hence must assist in bringing the stomach to that state in which they are disposed to act. In malignant & bilious fevers they should not be used indiscriminately if they are useful they are so in the very first stages - because afterwards the stomach is in a state of inflammation

In Intermittents they are very useful the proper time to give them is just before the paroxysm but

some say they are useful during the paroxysm –

In Apoplexy they would be injurious but this is a kind of Apoplexy proceeding from a disordered stomach in which they are ultimately useful

In epilepsy when the paroxysm can be prevented emetics may prove useful – In Hydrocephalus they have been recommended but they should only be used to keep up vomiting

It has been supposed that the primary cause of Hydrocephalus was rooted in the Stomach –

Some diseases attended by local inflammations are benefitted by emetics –

In acute rheumatism arising from miasmata Dr Barton recommends them – In chronic rheumatism they should only be used in moderating doses – In gout they are often useful – Emetics have been much praised in opthalmia the Dr says they may do good but mercurial action is more efficacious

They are useful in mania a Potu on the authority of Dr Chapman.

In asthma they have been used.

In all the species of cynanche they are highly useful especially in croup – an emetic often assists it

when gun. men at the very moment of attack — Croup is not a disease confined to the human subject alone Cats are subject to it and in them it has been supposed to attend to the lungs and died in the pneumonia nostra — If only one remedy was to be used in croup certainly that would be blood letting

The Symptoms of croup are longer for several days previous. especially as night approaches. some cough and febrile action during the night. the cough dry and slight during the day but more troublesome at night — some degree of dispnoea is generally present and the child raises its shoulders in breathing — Sometimes this stole lasts only for a few hours at others for several days —

Usually about midnight the breathing is more difficult and the patient is waked by difficult of breathing and there is moping in drawing the breath — the sound of the cough is peculiar like that of barking of a dog. — The moping and this are apparent. sometimes the cough is shrill and it is said to resemble the crowing of a cock.

Each fit of coughing agitates the

patient much the ~~body~~ spread
dey and now ——— the countenance
becomes livid. The jugulars swell
and perhaps all at once a convul-
sion occurs and the patient sinks for
a moment into sleep. From which
he is soon aroused by another fit
of violent and difficult breathing
after a time perhaps vomiting is
induced and relaxation occurs the
fit gradually goes off and the sufferer
falls into sleep. But more com-
monly if unattempted it terminates
more unfavorably.

Vomiting here is most useful
and large doses are most commonly
employed. but sometimes vomiting
is excited as easily as in any other
disease — Vomits given to dis-
charge the membrane in the
Dr's opinion removes it very sel-
dom occurs and never alone
the proper treatment

In all pulmonary affections emetics
are generally employed in small doses
In large doses they are useful to induce
relaxation. other remedies are resection
glisters of tobacco. Spirits. and smoking

In the Dothinenteric vomiting has undoubtedly been very useful in some
hands but not in others

In Sick Head ache they are very useful
In Tetanus they have not been much used but Dr Physick recommends that the tobacco glister might be of great benefit in tetanus and Hydrophobia -

They have been used in jaundice to facilitate the passage of gall stones and also cons of calculi in the ureters — In Peripneumonia they have been used with success
It is an old practice among the Dr has seen but few cases and he says that the result is more appropriate they are nevertheless useful in some cases

They have been used to overcome constipation an old practice now
They have been used in Hernia Humoralis just by Hunter and last he revives them —

Lecture December 3

Application of Emetics Continued

Emetics in Hemorrhages are useful in moderating doses but fatal above this practice — They have been employed in uterine Hemorrhage but Sugar of lead and Sp cinnamon are better in this disease

In Dropsy they have been much recommended that they produce absorption is evident. Women more than

spit will be observed from them in vomiting does

In Diabetis they have been recommended — In cases of poison they are of great use at first to evacuate the poison then afterwards the antidote is to be used —

In Dysentary Sydenham was much attached to emetics but some discrimination is necessary — In diarrhea they are often of great benefit when the it depends on a foul stomach and often the bowels has been evacuated small doses of Ipecacuanha are useful —

It requires about three days for an article taken as food to pass through the Alimentary canal. a purging otherwise in the course of seven hours — Rickets is a disease well known in Europe but little here — in which emetics are useful

It has been supposed to depend on a defect of phosphate of lime in the bone —

They are recommended in Haematemesis & in Chlorosis —

These are the principal diseases in which emetics have been recommended — The Dr says he might go to a the list much further —

It seems we cannot place our article Emmenity in the water — Medicos then are such a variety of opinions of practitioners in regard to this subject

There are some rules to be attended to
in the administration of an emetic
1st. If the vessels of the head are full
they should be previously bled
2nd. When the case is urgent we
give a large dose of the most active
kind
3rd In common cases we give them
in divided doses.
4 When we wish to make a strong
impression on the system we give but
little drink —
5. When we wish only to evacuate
the stomach we give copious drinks
6. When the action is too strong we
should have recourse to the stomach &
tincture of the base. A cloth
wrung out of boiling water and
applied to the epigastric region
may become necessary in case of
too violent an operation of the
emetic — In ejecting vomiting
with a feather we ought to be
cautious by not letting it slip
down the throat as such acci
dents have occured
7. They are now indicated in
pregnancy, chronic and in pros-
tration of the system
8 They never will of themselves
cure chronic complaints because

they are your chronic remedies

2. As a general rule the more it the last time to give an emetic but any time if necessary.

Particular Emetics.

Emetics are such remedies as first the stomach by their bulk and afterwards operate and can be used for the purpose but last Ant. is the best emetic —

Emetics have been divided into those that produce vomiting and those which do not. This division however is a very proper and useful purpose —

The Dr divides them into vegetable and mineral & the vegetable he treats of first —

Ipecacuanha.

We are not well acquainted with the plant that produces this emetic owing to the jealousy of the Spaniards

There are three species found in the shops the brown the grey and the white

Neuman in his chemical works tells us there are four kinds - one yellow. — In the London Pharmacopoeia the botanical name is stated to be the Cephaelis Ipecacuanha afterwards the Cocoina Ipecacuanha —

22.

1 Callicocca Ipecacuanha — Brown
2 Cicatia Ipecacuanha — Grey
3 Briola " — White

The Brown contains 15 per cent of emetine the grey 1½ and the white only 5 per cent —

Good ipecacuanha will vomit in the dose of 10 or 12 grains and less of ipecacuanha will sometimes vomit actively and it is not necessary to give more than 6. or 10 grains the average dose is from 10 to 15 grains for an adult. but if immediate vomiting is required we must give much larger dose —

To increase the powers of the medicine we may add 2 grains of tartar emetic to 10 grains of ipecacuanha. and when you wish to increase it powers on the bowels we may add 30 to 40 ipecacuanha when they keep many years —

When we give doses powders we ought not to give drinks as it will be likely to prevent vomiting — this is an observation of Dr Cullen —

Emetine the active part of ipecacuanha. is very soluble. taste bitter and vomits mildly

in doses of 2 to 4 grains - It has been injected into the veins - into the cavity of the pleura and other parts always with the same effect. at first it occasions vomiting and purging and afterwards death -

Two grains of sanitine was given to a small dog) vomiting was excited the hill asleep and during the following night - on examination there was found violent inflammation in the alimentary canal -

The sanitine is attacked from all the 3 Agents immediately it is found to be impossible to specify how by it not having any taste or smell. it effects may be annulled by an infusion of galls as soon as can reach it bring the last antidote to its power

It may be employed in all cases when the root can be employed its price is the greatest objection to its use it sells for 12 dollars per ounce -

The active parts of the root may be obtained by alcohol and water but the Dr is opposed to any preparation of the alcoholic or aqueous

Effects on animals is found to have some of its effects by exposure to the air the Dr thinks this doubtful

The quantity recommended for a dose is various the Dr says that grains X or XV is an average dose but to ℈ss is not too much. ℈i grains or 18 of Tartar emetic added to XV or ℈i of Ipecacuanha is a good emetic — a few grains added to jalap renders its purgative effects much greater

Lecture. December 6th.

Ipecacuanha Continued.

Ipecacuanha is the language of South America means vomiting root. Pelletier first introduced it into general practice. it was much used in diarrhea and dysentery. It was first given in very large doses from one to two drachms and first given in small doses by Gerald a german doctor & it found its effects given in diarrhea and dysentery answering to its emetic powers and not from its specific action as has been formerly supposed

Dover appears first to have used it with opium and also thus obtained an excellent antispasmodic — The root appears to have been principally used and the bark

The root is the most efficacious
Ipecacuanha is not useful when
violent vomiting is required. Most
lay stress on it in the cure of Cholera
Sydenham as a sudorific in dysentery
and practice it highly but it does
in reality as well as theory
Murray contradicts it's antispasmodic & relaxes the surface
surface then is no doubt.
It has also been contended as an
astringent —
Dr Rush's dysenteric mixture

℞ Opium gr ℔ss
Ipecac
Cretæ Rubræ ℥j

This is nearly the same as Dover's powders — Dr Barton's formula for dysentery

℞ Ipecac gr xij
Opium gr ij
Rad. Cretæ gr xxiv

To be divided into 8 powders. one given every two hours. It was contended at one time as a specific in dysentery.
Dr Fothergill remarks that when dysentery arises from irritation of the bowels this is very useful or in chronic diarrhœa he gives a vomit of Ipecacuanha in the morning every other day for 3 or 4 days and an opiate at night —

Chas Bean much used in
in our infants especially
where mixed with opium in the
proportion of two grains to the -
Intermittents Quinine & cal.
Rheumatism and in gout
Chas Bear much used

Dovers Powder -

℞ Nitre grs viij
Opii gr i
Cinam — gr i

The Sulphate of potash is sometimes
substituted for the nitrate of
potash - It is used in some of the
Xanthoxata especially where they
Bean disposed to vomit

In Hemorrhages it is given and the
Leaves or Bean made into powder
to one of spearmint and half one of
Gum - may 2 or 3 Grains is useful
in Hemorrhages -

In phthisis asthma & pertussis &
in hysteria It is given in small
doses — In jaundice and in amen
rose but in the last the Dr does
not think it useful.

Dr Clark recommends an infu
sion of the root in dysentery ℥ij
boiled in a quart of water -

In Intermittents It is given just
before an attack of ague -

In rheumatism use fruit also and then use the above powders — In dropsy spiraea and is given in small quantities doses which the Dr prefers and very large doses of doses powders has been recommended in cases as to promote absorption The Dr has ineffectually tried it in cases of poisons in very large doses but in these cases we must give the first emetic we can get —

All emetics as well as spiraea antho is contra indicated when there is a disposition to hemorrhage a strong determination of blood to the head in hernia and in the advanced stages of dysentery —

Spirea Tripoliata.
Gillenia Tripolata
Indian Physick

This has been supposed by some that the bark of the root is most powerful — but the late Dr Barton states the leaves and the flowers to be — It has an herbaceous plant rises from 18 In. to 4 Ft in height the stalk slender and erect the flowers are white and sometimes pink colored — roots running nearly along the surface of the ground — It grows in mountainous parts of the country and abounds from Canada to Georgia.

Dr Barton recommends it highly but Dr Brown who tried it in the clinic hands says that it is very efficacious but latter experiments contradict him.

It is said to possess a tonic power but it is in a very small degree

Another species grows in Kentucky which is still more valuable as an emetic than the one we use. The dose is from 25 to 60 grains — It is by no means as valuable as the Ipecacuanha and we should loose nothing by rejecting it from the materia medica.

Euphorbia Ipecacuanha

Ipecacuanha Spunge -

This plant grows abundantly in S. Carolina and is active in the dose of from 5 to 15 grains or 20 —

Nicotiana Tabacum

Tobacco. The Leaves -

The Tobacco deserves a place among the narcotics. Sialogogues antispasmodics diaphoretics and purgatives.

This is a very violent emetic & from the list we very desirous with it from its known operation

It is used for relaxing spasms as in hernia and it has been used in cases of poisons. Others mention that are preferable.

Bouquet analyzed this vegetable and found it to consist of Albumen. Gluten. muriate of lime acetic acid and nicotin

nicotin is a colorless substance & has the taste and smell of tobacco - soluble in hot water and in alcohol - Dr Brayer says it is at first very stimulating then very debilitating it has the property of the volatile oil. It would be as well to express it from the close of insects. However the Dr thinks it deserves some attention

Scilla Maritima
Squill The Root -

This is a bulbous rooted plant growing in Spain and in the Levant.

There are 27 species of it.

The Albertus Attisiana at first much resembles it - It has a smooth green shining bulb. produced from fetous roots. in the albertus the leaves is longer. narrow and terminates like an awl.

It consists of fibres or scales and is about the size of the fist. They should be marked with lines the bulb

when recent is acid. when dried it should be brittle semi pellucid and a little. Soluble in alcohol it is of a volatile nature and loses its properties by long keeping. it dries it loses nearly 5/6 of its weight but then it is much more powerful one or two grains equals 20 in its recent state.

The buds are to be principally collected

It is now employed at present for its diuretic and diaphoretic effects than as an emetic

It is mostly used in vomiting doses. in large doses it both vomits and purges. and as a tonic occasionally bloody urine &c.

The vinegar of squills in doses of from ℥ij to ℥iij and the syrup in double that dose.

Dose of squill pills ℥ij

with nitre is useful in dropsy

The Compound syrup is much the best it does not loose its properties by long keeping. Druggists do not make it well

It is a combination of three of the most active articles of this class. It is made by taking squill and drying. Make root of each half a pound

and 8 lbs of boiling water. which is to be boiled till the liquor is half consumed. strain and then add 4 lbs of honey. boil this to the consistence of syrup and then add to each pound 16 grains of tartar emetic that is one grain to the ounce.

It operates by purging vomiting or sweat. Dr Lee's gave it to the lives of his children in two cases

The dose is ten drops to one or more tea spoonfuls every hour according to the age of the patient or the violence of the disease

There are other emetics as Common salt. mustard &c but not of much importance —

Mineral Emetics —

Antimony in its mineral state is emetic but is rarely all emetics on the stomach. but as soon as they become oxydized they become active — all the preparations of antimony are in large doses emetics

The old name is stibium from this to antimonium came antimony as a mark being it suited hogs. attempts to soften this brittle metal with it

The name is generally applied to the sulphate of antimony found in the earth in various combinations — The sulphate is most abundant but has but

little activity and is seldom employed when it is it is principally for the cure of febrile affections in consideration does this action is not well understood they are the most useful in the first stages.

Lecture December 7-

Tart. Antimony-

There is no article that has raised so much in its reputation as this one now under consideration.

The number of preparation was several hundred but those in use now but few in them

Tartar emetic has various synonimous names as Tart of antimony and potash Tartrate antimony & Tartar emetic is made by taking antimony. sulphuric acid and the superbitartrate of Potash - The potash is essential for its constitution hence it ought to be tartrate of antimony and potash.

Tartar emetic, forms to crystalize in tetrahedrons - It has a styptic and metallic taste. by exposure to the air they become opaque and fall to powder but not readily It is soluble in 3 times its weight of water at 212. and 15 at 60°

It slightly reddens tincture of turnsole - It is decomposed by acids. alkalies and their carbonates Nyor. sulphurets. and bitter

astringents. vegetables and many of the medicals. — It is often adulterated with super-tartrat of potash and Salicin with intention if it contains silip it is not totally soluble in water by this process we may get rid of the adly — It should be perfectly soluble in water if there is any thing left it should be rejected — The Dr recommends us to prepare it ourselves he says then is no difficulty The dose is from one to two or three grains it should be given in divided doses as a Sudorific

It is given by adding from grains viii to table spoonfuls of water. a table spoonful given every ten or fifteen minutes until it operates.

The powder then vomits as described in the shops. — as long as you have the medicine in your hands it is applicable but no person ever it when given, when vomiting commences it is kept up with warm water. when too much has been taken it produces a most violent vomiting which nothing can stop. the pulse flags and the system is left in a most prostrate condition when this occurs it must be warmth too —

Art. viii.

This was formerly made by dissolving glass of antimony in warm

This Chemm varies in strength as the medicine differs in strength -

The latter says is 4 drops a certain quantity of emetic tartar in wine The american pharmacopia employs four grains to the ounce - the Dublin and London 2 grains

In making the wine of antimony it is necessary to dissolve the emetic tartar first in water. then add the wine - This is not necessary to the watery solution the wine is added to keep it the watery solution is apt to spoil - Alcohol might be substituted for the wine

A child one or two days old may safely take one or two drops -

He says when tartar emetic operates as a poison the Dr drops spirit is the best antidote - He seems to reject the favourite antidote. an infusion of bark.

Tartar emetic blisters the Dr considers as a chronic remedy as it sometimes takes three or four days to produce its action

Lecture December 9 -

Last. Ant Continued

On Tartar emetic as a poison as proved by the experiments of Magendie on dogs. they all perished when they had taken 5 or 6 grains when the oesophagus was tied

They took a decoction in the usual way with injury — It occasions difficulty of breathing tremors & death on dissection the lungs are found congested with blood

If the tartar emetic be exposed to the absorbant system it will have the same effect when taken into the stomach — There is a rough metallic taste frequent nausea pain in the abdomen stertorous breathing, vomiting, drunkenness syncope convulsions & death.

If the dose has not been very large we give warm water. If on the contrary give a strong infusion of bark or of nut galls. If there is stricture in the breast & severe pains then we must bleed

It is used in fevers both internal and external. Some suppose it to have a specific action — It is possible that it may decompose the miasmata which just impinges on the stomach.

Cullen supposes that they did most good when they produced vomiting this does speedily for digitalis — It first vomits and after wards keeps up the sweating by small doses —

In pneumonia it is often employed

in nauseating doses. In many of the diarrhoeas as measles small pox &c in small doses especially to act as an attenuant - It may be considered as an attenuant in many chronic diseases when there is a disposition to excess it is especially useful
It is recommended by Bingle and by Fordyce in dysentery and in intermittents.

Glass of Antimony —
Vienna glass of antimony is prepared from glass of antimony & wood ash — Glass of antimony has long been considered superior to any other preparation of antimony in dysentery -
Tartar emetic has also been much used in drink and in some cases when there is muscular rigidity and when we cannot bleed this is most applicable
When poisons have been swallowed it has been injected in the quantity of 3ß and it is said it produces an antipsoric cholera morbus
It has also been used to this amount in idiopathic tetanus with success - It is one of the most powerful irritants of the

there are three.

Kermes Mineral
Sulphuret Precipitation
Sulph. Antimon. Antimon.

One prepared by taking the sulphuret of antimony and boiling with double its quantity of solution of potash. cool the liquor and you have the kermes mineral — By adding sulphuric acid a precipitate falls down this is the sulphuret or golden sulphuret

But instead of suffering the Kermes mineral to precipitate we precipitate at a boiling heat. with sulphuric acid and we have the last which is a mixture of the two others. They differ but little in their properties the dose is from ½ to 2 grains — When alcohol is burnt over these substances it said to be milder and useful in hooping cough.

Pulvis Antimonialis

Take of the Sulphuret of antimony one ounce Shavings of hartshorn of each equal weight put them into a wide mouthed iron pot. burn it into a matter of an ash gray color. then grind into powder. put this into a coated crucible like to this crucible one inverted over it with

a chalk perforation in the bottom then apply a fire and raise it to a white heat to be kept so for two hours and lastly grind it into a fine powder

This is a combination of the oxide of antimony and the phosphate of lime.

The antimonial powder is used in febrile diseases in the dose of from 3 to 8 grains

Copper –

Furnishes several entries but the Dr only mentions one the

Sulphat Copper –

made by boiling sulphuric acid and copper together when pure it is of a fine blue color and crystalizes in rombiods It is Sol. in 4 parts of water at 60° and insoluble in alcohol. Sol. of the Sulphuric Salts.

It may be easily separated from its Solution in water with Iron & Phosphorus. – Into a Solution of Sulphate of copper suspend a piece of phosphorus this latter substance will be beautifully coated with metallic copper. all animal liquors are capable of absorbing the oxide of copper.

It contains 42 part of copper 33 Sulphuric acid & water 25

Copper is a poison – in its metallic state it has been given in ounce doses to dogs without effect: but the oxide is powerful

Orfila thinks that the salts of copper are absorbed and connect with the circulation and acts on the nervous system

a person poisoned from copper has an acid taste in the mouth parched tongue pain in the abdomen dyspnoea diarrhea. vomiting convulsions and death. sometimes gangrene takes place. The best antidote appears to be sugar in large quantity in solution. the Sulphate of Potash and the Solin salts throw down green – if the sugar is not at hand we must supply the patient with warm water or cold water —

Lecture Decemlin 10th.

The Sulphat of copper acts powerfully in doses of 2 or 3 grains it has been given in doses of a scruple when laudanum has been taken

It has been highly recommended in phthisis pulmonalis in doses of gr ij to XX Dr Hamilton used it in pills from grains v to viij of blue

nitrous and spasmodic affections in children. Cullen and others rather discouraged its use. It has been employed in the Southern States in cases of croup. Its action is said to be more local than that of most other emetic articles. It was used in the west indies in the form of the Dry vomit of Mowat which Lembert & regarded quantities of this article and Tartar emetic.

Zinci

Zinc is known in the shops under the name of Spelter. Sp. Grav. 7. The metal is of a blue white color.

Oxide of Zinc is formed by heating the metal to red hot crucible. The zinc flowers unites with the oxygen of the air and is collected. Hence called the flowers of zinc.

The Sulphate is chiefly employed. It is prepared in the large way by roasting the native sulphet in the air. The sulphur combines with the oxygen of the air forming sulphuric acid. This then acts upon the metal

In the same manner it should be mentioned the sulphate of copper is manufactured. The sulphate of zinc may be also prepared by the action of the acid upon the metal. This is the process for obtaining hydrogen gas. the oxyde turns the tincture black in the fire

It has a very disagreeable taste & is soluble in 4 parts of water at 60°. It is generally soon thrown up by vomiting but sometimes produces nauseating effects or unpleasant effects such as stricture and pain in breast abdomen &c

It is relieved with iron water - milk is said to decompose it - and by the usual remedies

It is very useful in cases of poison in doses of 38 or 31

The Dr says he has given half an ounce in half an hour in divided doses without any effect probably the stomach was torpid

Cullen thought it was equal to tartar emetic but the latter is not so prompt - it is said a tea spoonful of mustard after eats its action The Dr does not think much of it in other cases.

Mosley says it is less violent than other emetics and also that

leaves the stomach invigorated but this we do not want. we see not use to invigorate the stomach.

It has been recommended in hooping cough under the idea that it is an antispasmodic but this opinion is unfounded the following was Mosleys vitriolic Solution

Vitriolic Solution

R White vitriol ℥ii
Rock Alum ℥i
Cochineal ℈ v.

Dissolve them in a pint of boiling water. the dose is ℥ss to ℥i or 5 or 6 grains of the salt.

This is recommended by Mosley. — The sulphat is the only preparation of Zinc in use.

Of the Mercurials The Dr only mentions one. the

Turpeth Mineral

or Sub-Sulphat of Mercury —

It is of a yellow color and contains but a small quantity of the acid — It is prepared by boiling the sulphuric acid on mercury a portion of the acid oxidizes the mercury which then unites with the

ust forming the mercurial salt which is of a dark grey color. this is to be thrown into boiling water and the compound divides into two parts the Super and the Sub. sulphat. – The Super sulphat remains in Solution or is dissolved and the Sub sulphat is precipitated to the bottom. in the form of a bright yellow powder

It is very liable to Salivate It has been recommended in Hydrophobia and is said to be a potent and powerful diaphoretic & diuretic & glandular swellings as that of the testicle

The dose is from 2gr to 6or8

It may be given in doses of a grain or two as an alterative and a diaphoretic

Corrosive Sublimate has been recommended in croup but it is a dangerous remedy —

Cathartics

Cathartics properly signifies purgation or the expulsion of any of the excretions and in consequence some of the ancients used to classify them domestics deobstruents &c —

There is contained in the intestine the excrementitious substance gastric pancreatic biliary fluids air and water — When cold is applied to the skin the circulation appears to be driven to the centre and drinke is after the consequences and increases

If we take large draughts of cold water sweat after breaks out upon the skin. This is explained by the parts giving out caloric and consequently are contracted

Willis endeavoured to controvert an old opinion that certain purgatives have a specific action but notwithstanding all that has been said it really appears that certain articles act more powerfully on certain parts — The first effect of all cathartics are stimulating but there is a wide difference between them in this respect.

Ice cold often modify the effects by modifying the dose but not always — Bad effects sometimes arises from purging one case is related by Cullen where the patient was purged one hundred times

Sometimes happens that the intestinal contents pass on the aorta and prevent the blood from descending and vice versa on the ascending aorta and preventing the flow of blood into the heart and this prevention often induces disease

The Dr recommends to peruse Dr Hamilton on purgatives where we will find many useful observations —

Cathartics have been divided into three classes —

First - Those that irritate the muscular fibre of the intestines

2 - Those that increase the discharge of bile

3. Those that discharge the excrementitious matter from the blood ——

Lecture December 18th.

The division of cathartics is into Laxatives. Purgatives. Mild cathartics and drastic cathartics -

There are many theories of the action of purgatives - By manifest quality - occult - attractive similarity - sympathy - the humors fermentation - relaxation - The Dr mentions usual mode of purging as being thro' the blood dissolving, choling in the blood altering the action on the nerves of the gut - also by spasm & other when the article has not been dwelt upon and which is by some explained by sympathy -

Whenever an active cathartic is taken in health the first effect is stimulus on the stomach sometimes they are thrown up by vomiting but notwithstanding purging is often plentifully excited. because the medicine already prepared to change the organization - From the stomach the impression is gradually progressing until it reaches the whole tube to the anus

when a discharge takes place it is often at first hard & solid

It has been recommended to give

a glister taper a cathartic on this account to discharge the hardened feces - In the operation the contents of the blood vessels are much diminished and hence they are ranked amongst the most powerful of the depleting measures next to venesection.

Calomel did not think to be but very injudicious

The absorbents are also brought into action these functions are all powerfully promoted by purging how they are promoted is not so easily answered it is at best an enquiry of curiosity

Different kinds of food sometimes acts as a purgative even breakfast always acts as a laxative and excites us to stool in the morning

The action is somewhat analogous to the action of bleeding in cases of depraved pulse when it rules after venesection - Adults generally have a discharge once in 24 hours - Children oftener -

It is conjectured that food remains in the intestines three days and that it moves at the rate of ten feet a day but if an active cathartic is used the whole contents are evacuated and then will not be much dis

discharge for three days after that time —

Some persons enjoy perfect health who have an evacuation only once in 3 or 4 days. Some cases in medical record mentioning months and even years elapsing without alvine evacuations.

Constipation produces or aggravates many diseases and it aggravates many cases — 1st By increased debility in the coats of the intestines — 2 — a habit of delaying the alvine evacuations 3 — Too great a rigor & rigidity 4th By time that by increasing the cutaneous evacuations may produce constipation — Cold often produces a motion in the bowels by increasing the intestinal secretions

5. The apparent state of the viscera liver — pancreas & duodenum is often occasioned by syphilis. The pancreas sympathizing being affected by the mercurial poison distributed into the intestines

Most medicines have this effect in some measure but this is not always the case on the contrary they become more active by use —

In costiveness from a deficiency of bile mercurial purges salivate

In constipation arising from great irritation as in cases of hernia one must not to the means as the warm bath. opium frictions opium sometimes act as a purgative by relaxing spasm

In colic injections then is first contemplated and then is a difference of opinion whether we should use the drastic or mild purgatives - The Dr prefers small and repeated doses of calomel - The efficacy of cathartics in general has not been denied - in general the peristaltic motion of the bowels are interrupted and we are obliged to keep it up by some means - At the beginning of illness it is not of much consequence what purgatives we use but after the first child subsided it is necessary to be cautious

Lecture Dec. 14th 1824

Application of Cathartics Continued

In intermittents when there is an increased secretion of bile it demands purgatives - Intermittents demand a free use of the remedy, next to bleeding they are probably most useful -

In Typhus fever they are more useful than formerly and are recommended strongly by Dr Hamilton — all the fluids found in the intestines are irritated and can only be removed by castor purging. purgatives should be given in the day in all diseases particularly in typhus fever — the necessity is obvious the patient should not at night.

Dr Cope believes that the primary seat of pemphigus is in the blood vessels.

In some of the exanthemata they are most important.

In small pox — it is supposed the importance of purging is very great. and in scarlatina even long used purgatives — In Conjoined plant have been used bleeding. blistering. cold affusion. The system moderates the action of all remedies

Purging is very important to prevent adhesions swelling of the legs in scarlatina — and are also useful during convalescence the head is very apt to be affected and the organs

Chronic especially - The Dr Chron
mentions the Cases of Chi two both.
ers one lost his sight in both
eyes the other lost it in one.
They are also useful in chronic
opthalmia & opthalmia is not the
least to demand our attention
In Marins Catarrhus they are
to be used almost every day
or other day for months.. Dr
Physick says they grow better
under the use -
In rheumatism both chronic
and the acute after the use
of the Lancet and a cutaneous
decoction is said to have cured
this disease.
In gout they are said to be of
service in retrocedent gout in the
Dr. estimation it is the opium
and not the disease in which
is the Specific medicament.
Let us hope that they will be
found hereafter to cure every
disease. Cullen says much
may be done with regimen
and the Dr says it can be cured
by regimen it is not so incura
ble. whether gout is always

Diarrhea in the alimentary canal
I cannot but feel fit to a Knowledge
I hold castor mostly Soy it is
and the fill symptoms are
Heartburn &c — —

when retrocedent gout attacks the heart or other internal
parts which are vital purging
should be used with much
caution and as a general rule
they should be avoided —

In pleurisy they are useful
so it is mentioned by some by
others it is contradicted and
say they are not useful in the
complaints of the chest —

what I have observed leads
me to think they are as
useful as in other diseases

In inflammation from wounds
in which they are useful in the
latter they should be timely em-
ployed

A partial stoppage or suppression
upon the lungs blood vessels have
been occasioned by the intestines
filled with hardened faces &
purging will be highly necessary

They have long been used in
Epilepsy Cullen responded to

be a nervous disease. Rush on the contrary a disease of the blood vessels & in some cases the Dr says he thus sees the vascular system much interrupted and often is it occasioned & kept up by flatus in the Alimentary canal whatever may be the cause purgatives are highly useful.

In Apoplexy they have been much used and may perhaps by taking it prepare from the Nervous. Apoplexy consists in a loss of voluntary motion — They are useful in some cases of paralysis. chronic Rheumatism Dr Rush used aloes in preference to all other purgatives.

In Hydrocephalus they are of great use. both the medullary and cortical part of the brain have been effused with serum — and no medicine are more important perhaps than evacuation.

In Phrenitis and in melancholy they have been useful especially the white hellebore.

Chorea. I acta vita I Comelton used purgatives and found them useful. But the Dr does not think that the disease is seated in the alimentary canal and is of the spinal. It is rarely idiopathic and occasioned by the effusions of serum and other affections of the brain. nine pounds of water have been found in the brain in these cases—

But we shall have various grades of apoplexy hereby — and it is not necessary that there should be any long effusions a tea spoon full may cause all the symptoms. The Dr has seen two cases of this in dogs and in both there was watery effusions.

In idiopathic headache they are extremely useful Dr Rush had a patient not for from 40 years —

when it is constitutional it generally arises from increased action and generally bleeding attention to diet long continued use of purgatives should be used after which the use of tonics is necessary to support

and give vigor to the system
When not properly attended
to this complaint may termi-
nate in palsy, apoplexy, convul-
sions, dropsy &c.
Where is the pain situated?
In one case pain affects the side
of the head but after death an
erosion at the base of the brain
Bark, Cubebs, opium &c. have
been used in cases of headache.

Lecture December 10th.

Application of Purgatives Continued
In tetanus purgatives are useful
for it appears to be more of a
complaint of the alimentary ca-
nal than the uterus. Poi-
sons in male children Dr Rush
supposed it gout.
Dr Hamilton proposes them
for the cure of tetanus but he
goes rather too far. as tremen-
ous purging has proved injurious
Other than mentioned and
by tobacco injections. made by
taken of tobacco to a pint of
water. half given at a time
as an injection in tetanus
The Dr says many diseases has

Ipecacuanha which if the patient
have the will get well for it
must turn the scale that out
of 40 cases of cholera treated
by anti-spasmodics is more recov-
ered.

In dropsy they are very import
ant in ascites and anasarca in
the hydrogogues are used such
as the cream of tartar

In chlorosis that is accom-
panied with derangement
of the digestive system pur-
gatives are of great use.

When the bowels are constip-
ated with great quantity
of faeces the cure must be
effected by drastic tonics &c

In hematemesis Dr Hamil-
ton recommends vomiting.

In menorrhagia purging is
recommended frequently repeated

Purgatives are given with
three fold indications
1st To obviate costiveness
2 To assist other medicines
in the cure of carcinoma
3 By long continued use to
act as a cure of themselves

when even a long employment of purgatives are deemed necessary one should employ them that least offend the stomach.

In the treatment of acute diseases they are manifestly part of the antiphlogistic plan.

But when given to emaciated individuals they are to be taken by other attenuant forms

A mode of obviating costiveness is the mineral waters - The antiphlogistic are not to be prescribed although they can be made to serve - Nitre does them the same other advantages must be looked for - A pint or ten to twenty glasses of spring water can be taken in a day it would give off by stool urine & sweat. Change of air habits diet. Society and the journey &c all conspire to render these waters salutary - The Dr moving in this light he has been enabled his advice and has derived much benefit

The Dr divides cathartics into
~~the~~ laxatives and purgatives &
~~tants~~ of vegitable laxatives just

Vegitable Cathartics

Manna

Good brown sugar the Dr says
is as good as manna -
manna was first mentioned
by the arabians and they consid-
ered that it fell from heaven -
It is an exudation from the
Fraxinus Ornus of arabia - from
the limbs branches and the trunk
Flaky manna and manna in
sorts - The flaky manna is pro-
cured by making incisions in
the bark - A Lemon says it
is adulterated with sugar and
certain salts - if dissolved in
water it is much more glutin-
ous when adulterated -
It is purified by dissolving it
in wine then ~~the~~ Spirits
Composition is olaic the lac-
tic acids and a Sacharine matter
Sugar yields only the olaic

Lecture. Dec. 17 -

Manna Continued

Manna is one of the most
pure Say the mildest purg-
atives we have, but it is

apt to gripe The dose is ʒi to ʒij
it is commonly given with sumac
and often with salts.

Juglans Cinerea.

White walnut.

An extract is prepared from the
bark of the butternut. is used as
a cathartic — It was discovered
during the revolutionary war. when
medicine was difficult to be
obtained

The extract is prepared by evap-
orating a decoction of the inner
bark of the white walnut.

The Dr says the druggist does
not prepare it well for as soon
as the mass becomes thick it
should be finished over a water
bath. for if it burns it becomes
a mere charcoal mass good for
nothing — The dose is from five
to ten or twenty grains — The
bark of the root is said to blister.

Podophilum Peltatum

The May apple resembles jalap
in its properties Dr Bridglow says
it is one of the best native arti-
cles we possess. dose fifteen to

truely a truly — The roots are purgative. the leaves poisonous and the fruit acrid. The difficulty of obtaining the correct medically properties of plants is here clearly illustrated. that in one plant the different parts of it posses such a varied difference in operating on the system. How can we establish on a sure basis the dignity of opium with among authors. when the medical virtues of part of a plant is fully ascertained without taking into consideration other parts which may be more Specifically The may apple might have been inserted with propriety amongst the narcotics. Since it would not be thought as Bidgelow says the root is one of our best native cathartics —

Dr Rumbley jalap it has used in dysentery — and by some dangerous it has been sold for jalap but the root is thin

and fibres: while the root of the
jalap is heavy and mealy
The Indians use the may apple
as an anthelmintic
An extract is prepared from it
which is useful as a cathartic
The Dr says this would be an
excellent article for an unguent
al thesis by comparing its virtues
with that of jalap —
The best time for gathering the
may apple is when the leaves
have turned yellow in the fall.

Oleum Ricini

Is from the seeds of the Palma
christa or Ricinus communis
Castor oil was known in the
days of Hypocrates: but some
suppose it to be the croton oil
which Hippocrates knew to the
contrary. however the use of it was
instituted
It seldom grows higher than ten
feet in this country. The seeds on
boiling after being crushed the
oil rises to the top. The cold ex-
pressed oil is the best.
The Dr believes we have counte-
this tree for as we adulterate the

article by endeavouring to prove as he is of the opinion that the fact is in the covering of the seed not the part which is taken in the oil. This is the castor oil At the bottom of cold pressed oil a sediment is deposited of which is a darker color than the oil which the Dr suspects to be the active part of the oil and by endeavouring to obtain the oil by separating this sediment we separate the best part of the oil.

Ten pounds of the seeds yield one of the oil. The seeds purge actively and the oil acts mildly and its power in castor oil at first it requires an ounce after words half an ounce or two drachms - In dysentery and in colic it is very useful and it must have some action in diminishing its lubricating power as it is superior to almond oil

Dose for an infant one month old a tea spoonfull 3 months two tea spoonfuls and power one to five years a table spoon full may be given - In giving it we should moisten

the aspic with water rum coffee or brandy) - In pumpeal fever it is recommended to be given in the white of an egg mixed with an ounce

Oleaginous Mixture

R Castor oil	℥ij
Gum Acac-	
Sacch Alb	℥ij
Ol Mint gt v	
Aqua	℥vj

This is merely a mechanical mixture and separates by standing

The dose is a table spoon full every two hours until it operates

The Dr says this is a useful mixture but giving two drachms of the oil will answer as well as the mixture - ~~2 [illegible] 66~~

When we administer it it is dyer tey we should unite laudanum with it -

Sweet oil

It may answer to this also melted butter and the latter is frequently employed in the bowel complaint of children

The coating of the walls of the prima viae is very active in the purgative powers even a single dose and and it evacuating will purge more drastically

contains the croton oil
Orfila gave a small dose of
the seed to a strong dog and it
vomited. Then in a large dose
when the esophagus was tied
it caused his death.
To another dog he gave Bij &
then tied the esophagus he died
on dissection the mucous mem-
brane was slightly effected near
the pylorus.
Orfila believes that the oil
acts on the nervous system
after being absorbed —
The internal bark of the seed
might be kept in powder
and in this way might be
administered. Known this
requires experiments. ——

Lecture Dec. 20. —

Acum Figlii

Croton oil is of a dark brown color
resembling brandy — It has within
a short time become celebrated
and it has been long known —
The plant grows in Malabar and
in other parts of the east indies
The seeds are known under various
synonimous names they have
been called Barbary, Molucco

nuts It is said that the leaves are useful to cure the bite of the Aspis Coplia and that they make a good healing ointment — Some know ascribe it purgative powers to the skin of the tigli & that the nut may be safely taken — The expld oil has been used by persons on the Coromandel to procure purgative effects — The seed are very active the Indians boil them in wine or vinegar for use — The seeds are said in dropsy and fishes are said to be killed by them when thrown into the water. They have been used to procure abortion — Alcohol dissolves the active principal It is often adulterated with olive oil and some others. but when pure it occasions numbness of the head aches —

Dr Thompson says when there is a tumefy applied it produces a crop of pustules — It is certain it that it purges without griping It may be given in pills with syrup or mucilage. — The dose of the oil is one drop — The Dr says this would be a good subject for a thesis the analogy between this and the oil obtained from the seeds of the Croton Tiglium

By inducing an evacuation it relieves
the bowels and upon
continuing it in the Chamber pot
to exhale the vapours it pro-
duces a purgation that is
called my dear purging Physic
Dr Brown says it is evident
that violent (by) stimulants
take off by exciting the mind
upon us & tea & the vile
Chinese & Spirituous & evil
spirits and about one dose
of the ale is a good pill for
constipation

Senna

Is the leaf of shrubby and a perenial
plant about 2 ft high growing
in Arabia and in Upper Egypt
It is said that the true Senna
grows only in the woods of Ethiopia
There are three kinds the

Cassia Senna
Lanceolata
Alexandrina Obtusifolia

The last is similar to the other
but it is not so strong
The Alexandria Senna are
in various long leaves oblong pale
green & pointed & an inch broad
about one inch long & not pointed

That from the Solanaceæ the East Indies is what we mostly get it is nearly long and sharp pointed the other end is round & not black - They should be free from sticks and other impurities.

It is said boiling destroys the purgative power and China cold infusion but the Dr thinks it does not the watery infusion takes up a gravish matter (tannin) and the Dr says that cold infusion makes a very pleasant mixture. it has not the nauseous bitter taste and properties that the hot infusion has.

A peculiar substance has been extracted from the leaves called theine

The chief advantages of the leaves is its certain operation it will not fail where stems will not operate - The powder is better two battles to be taken it has been recommended not to use the fine dust of the leaves but spread them gripe, but they have the same properties. - The dose of the powder is 3i although the usual prescription is an ounce yet about half of it is thrown away - To obviate the griping pharm. Augr moloses

and ginger has been added but
Dr Says Cullen found that
Aquassia is the most effectual
one with of the common bitters
will put into the infusion.
The Dr does not think that in
the whole of the materia med-
ica there is a more certain fe-
brifuge and tonic it is highly
useful in obstinate constipa-
tion of the bowels is absorbed by the
infusion from the atmosphere
this may gripe - Senna should
be used as soon as prepared.
Dr Ridgeley says it does
not gripe more than any other
vesicous substances
From its activity it was for-
merly used in Chemia - but it
is said boiling destroys its ac-
tivity - Then one may pre-
scribe it in substance powder with
the infusion as all that should
be retained
It is commonly prescribed
by taking Drachm ij and half an
ounce of sugar to the pint in
a pint of water and boil to
half a pint - Dose of which
is a table spoon full —

This is wrong it should be made by simmering it a covered vessel merely by pouring boiling water on it. It has been recommended to add salts to it but the composition is very nauseous —

Warners Gout Cordial

℞	Rhei	℥j
	Senna	℥j
	Fennel Sem.	℥ß
	Cardam.	aa ℥ij
	Saffron	℥j
	Raisins	1 ℔
	Brandy	1 ℔

Dose one or two tablespoonfuls ad ℥ß or more from ℥ß to ℥j
This might be considered as a tincture of rhubarb and Senna —

Cassia Marylandica
American Senna

This is a plant of the same genus and grows plentifully in some parts of the U. States — It is said to be equal to the cassia Senna. Its employment is the same —

Rhubarb.

Very few articles have maintained so high a reputation as the rhubarb — The actions and vices to know introduced this article into practice — There are two species of plants —

Rheum Undulatum
Palmatum

and another plant is introduced the Rheum Compactum — The roots of all are similar in properties they are occasionally mentioned as the Rupia. Indian Tartarian Persian Turkish and the Medicinal Rhubarb — It is generally supposed that the Rheum palmatum is the true plant but the Rheum Rhaponticum of Linnaeus is also mentioned as producing it The leaves and the medicinal stem is an esculent — The Rheum Rhaponticum grows in Siberia and the roots are generally distinguished by too much mildness.

It follows then that there are other species than the Rheum Palmatum which produces good Rhubarb.

Rhumatic acid is found in the stems of the rubarb and it deposits mucous with Ammonia

Lecture Dec. 21 —

Rhubarb is brought from China also Siberia by way of Russia

The Russian rhubarb is commonly in round pieces of a reddish color with brownish streaks and compact structure

and aromatic — In the Pharm
there is an direct that you upon
it but does not destroy its virtues
as often it passes through the intest-
it purges actively

The Cathartic is silicon-purpurate
with Cloves and is either in long pie-
ces or has two flat sides It is
brown also —

Good rhubarb should be dry
compact moderately heavy. yellow
ish color and somewhat aromatic
It should not be gritty when
cut and easily reduced to powder.

The rhubarb known in drying
about 9/11 of it weight

Rhubarb is somewhat bitter
the dose is 5i to 3i or more ten
or fifteen grains with calomel
is a good purgative — It may be
given in pills in ~~a~~ making the
pills one should use the tincture
of the aromatics as one is
aware its powers.

Rhubarb with gum of each
equal weights. made into pills
and sometimes use in my dr co-
lumbo.

I would have an opinion that
this article has a narcotic
effect or property combined with
its other properties ——

In dyspepsia very few articles are to be prefered to plantain combined with columba or some other tonic

In dysentery and diarrhea it is very appropriate on account of its astringent properties

In gouty affections it has been long celebrated especially in the form of tincture which is very appropriate to old and habitual bowels and has been long considered one of the best preparations for children

℞ Rhei pulv. ℈ ij
Magnesiæ ℈ ij
Ol. carui gtt v
Aquæ ℥ v

Dose — two spoonfuls — to a child four years old

It is liable to ferment and to turn sour in a very short time hence should be added at the time of giving it. This has been suspended by many to the Spirit of hartshorn — but this last is very useful in the common complaints of children

It has been considered as an antiseptic but it is only purgative

Rhubarb yields its active powers to both water and to alcohol.

Roasting rhubarb is said by some to increase its astringency & greatly benefit its quality but if great care be not taken it is much carbonized

Rhubarb ~~is~~ occasions a yellow color in the urine on this account probably it has been considered as a diuretic

To dry rhubarb it should be properly dry as a very little moisture renders it mouldy and impairs its powers.

It has been used as a remedy in ascites and should be more employed —

It is cultivated in England and in this county it is one of the few articles which will retain its credit and induces us to invite our attention to it —

Jalap —

Has been said to be the root of a plant climbing and perennial called the Convolvulus Jalapa.

It is said that jalap was brought to Europe in 1710. and to have taken its name from

74
Zalapa. a town in New Mexico.
Linnaeus says its flowers are
close in the day and open at night
In the shops are found the root
cut into slices of a dark colour
hard. both nauseous taste &
a faint smell - Its virtues re-
side in a resinous part -
The resin is obtained by pre-
cipitating it from an alcoholic
solution with water. The
gummy part is in an incon-
siderable proportion to the
resinous part and has but
little purgative power -
The best jalap becomes
mouldy after very long keeping
and is frequently eaten by
worms they live on the gummy
part — One pound produces
about four ounces of resin -
It is generally used in the state
of powder which is said to
act more mildly than the
resin alone.
C. C - gum resin extract strait
and woody fibre -
The powdered root is apt
given to excite in the dose
of 30 or 40 grains but it will
operate in much smaller

dores — when purgatives are used
every day for a long time this is
very hurtful — Rush used it
combined with colomel & cod
in grains in yellow fever —

R is a powerful remedy in
dropsy but not so much so
as when combined with cream
of tartar — R is one of the
best cathartics of the materia
medica

Several other species of the
convolulus have been used with
advantage medicinally. The is
only one which now remains in
the shops which is the

Convolvulus Scammony

A large tree growing in Syria
The roots of the Scammony is from
3 to 4 feet in length and 9 to 12
inches in diameter. It yields a
milky juice — It comes from
Smyrna and Aleppo — The color
of the aleppo is ~~dark~~ less dark much
less heavier and more valuable
It contains double the quantity
of resin which is the active part
the other is full of sand and
other impurities. The aleppo is
in light spongy masses. Better gum
the grey when powdered

Chemical composition is when
some <u>volatile</u> & woody fibre.
It is a drastic cathartic &
was formerly supposed to be
corrected by the fumes of
sulphur. known under the
name of sulphurature
The best way perhaps to give
it is to rub it down with a
little sugar and milk and
in this way from three to five
grains may be safely taken
when active purging is required
combining it with creosote
& tartar. Also to obviate
its griping effects.
The Dr thinks that this ar-
ticle ought to be dispensed
with —

Lecture Dec. 23 —

Aloes

This article has long been used
as it is mentioned by Dioscorides
Several varieties are used but
one is not named the Socotorina
which grows wild at the Cape
of good Hope. the tree from which
the Doctrine is obtained
The leaves are broken off and the
juice is expressed out. it

them Crudens in the air — It is
prepared from the Aloe Perfoliata
It does operate that the lines are
broken & and bolid it is then shiv
ed and pulverized & sieved.
Aloes so named from being brought
from the Island of Socotora at
the mouth of the Red Sea -
The Socotora comes in skins of a
yellowish color - It is in lumps and
when powdered is of a golden yellow
color. and is more aromatic. than the
other species. Taste strongly bitter
and small aromatic - The dose
of aloes is from two grains to XXX —
a small dose operates nearly as
effectual as a large one —
Galen considered it to have
anti spasmodic properties —
It is seldom employed alone. it
is combined with Cornella alba
and Jomes. the Lenea pieca which
is a powerful purgative preserves
the same Sensible & and bitter.
Aloes acts on the lower intestines
principally it does of a 3i - It is
very useful as an injection for
as one does It action is mild
Aloes forms the principal ingre-
dient in Anderson pills
One of the best purgatives for
costiveness is aloes and asafatida
in pills with a little croton oil

It is a useful medicine in hysterics and other nervous affections it takes 12 to 16 hours to act and the patient is not disturbed at night and it is a useful remedy in acute diseases — Cullen considers it to have tonic and narcotic powers.

Gamboge

A gum resin. This is obtained from a tree growing wild in Siam & the plant is a creeping one. It does not appear to be peculiar to any family of plants. It is generally procured from the State juice of Gambogia, by bruising the leaves and young shoots when it exudes in drops hence the name of gummi gutta. It has but an acrid and a gum has been obtained resembling the above tragacanth. It comes in rolls of a red dish yellow color and has been used in yellow paint and in India ink probably it was recommended in these diseases on account of the astringent doctrine of Signatures —

It is a very active cathartic and in small combinations

with colomel aloes and jalap
much assumes a specific action
when and how it should be
given — If the stomach is
irritable it should be given in
small and repeated doses or
it will occasion vomiting. It
thus had much credit for worms
and being given in doses of fifteen
grains with good effects

It is often combined with cam-
phor tartar emetic and with Cal-
omel in the dose of two or three
grains of each is a very active
cathartic — From thirty to ten
grains alone it is a very active
powerful watery stool —

Colocynthus —

The fruit of the Cucumis Colocynthus
an annual plant of Turkey
called the bitter apple —
The fruit is the part employed
and the medicine is prepared from
fruit. — It is light spongy &
of a yellow color, when dried
It is of a very drastic nature
but has been much in favour
with physicians — It has been
given in the shape of pills
in powder and when introduced
into the rectum it is said to

80 produce bloody flux.
Colocynthum in combination with nitre and used as a clyster in Iscuria is said to never fail.
Scammony & gents and Spts of Colocynthis of Cloves and Cloves each one part is on the whole a good purgative
In doses of X to XV grains it purges with great violence and often produces bloody flux it has been combined with various articles to render it less active but then should be discarded with
It has been recommended in mania & lethargy
It is often used by Sailors for gonorhea. and they often injure themselves by it
It should be given in combination with aloes jalap and Scammony in pills

Elaterium

Cucumis Agrestis. Monoecia Elaterium
Syngenesia Cucumber. is a plant resembling the cucumber
When the fruit is perfectly ripe if you touch it. it bursts at the stem and squirts out a juice with great violence

Thus has gone on to its maturity

It is planted in the South of Europe and grows annually in England the juice is the part employed and there are two kinds the black and the white

The black is prepared by the heat and is prepared from the juice which exudes spontaneously and then thickened by evaporation

The white extract is prepared by evaporation of the juice

It is usually met in the shops in flat cakes of a dark color and of a foul smell & bitter

Some say the older it is the better and some have the contrary opinion - It loses its virtues by keeping

In the dose of j or ij grains any fever shows it is any useful in dysury but smaller doses are generally recommended - a dose of 1/6 of a grain is speedily active and is said to produce sometimes the bloody flux and a peculiar sensation in the ears of the fingers - It should not be given when we can avoid it - Some have recommended this substance in the doses of X or XV grains but the Dr

thinks it impossible that this could come like the Samaritan Some writers says that it is a constituent part in the Eau medicinalis —

Helleborus Niger
Black Hellebore Christmas Rose —
Melopodium - The Root

This flowers in January when the weather is mild the annual plant a native of Austria and the South of Europe — The roots are knotted short running deep in the ground and it runs horizontally it has a smooth taste but very little smell — It works by acting by purging By applying it to the tongue it is said to burn.

It is substituted sometimes for Hellebore — Some have supposed it to be purgative in moderate and mild medicine. but it sometimes produces violent pain in the abdomen, convulsions violent vomiting, hypercatharsis delirium bloody stools, hemorrhoids and death.

Some say it is useful in obstructions of the menses

The dose is from 10 to 15 grains & may be extended to 3i

Dr Mead is said to first bring
into use it as an emmagogue
The ancients used it in mania
& melancholy as a purge. At it
now more used as an alterative
Dr Cullen discourages its use. The
dose of the powdered root is from
5 to 10 grains - but much depends
upon it being in a dry or moist
state -

Veratrum Album

White Hellebore has annual
perpetuus in common with the
black. but the flowers and
the flowers are very different
the white has much the long-
est roots and is acrid and poi-
sonous in all its parts - It is
said when the root is applied to
the abdomen it produces violent
vomiting - and also if the root is
powdered and used as a Ster-
nutary has caused abortion
I've not seen sufficient to
enable us to estimate its value
It has of late been used in
mania in the form of a decoct
Dose is from two to three grains
The diseases in which it is
most appropriate seems to be

affections of the skin as Wilson recommended it in many other affections - Not sometimes used in tincture

There has been many other vegetable cathartics sometimes but most of them have gone to sleep. and the Dr has no occasion to write them -

Dec 24

Mineral Cathartics.

Calomel Sub. Mur Hydr.

This article has been named dominations as mur. and Sub muriat of mercury and the mild muriat.

Of late it is supposed to be the Chloride or the proto chloride of mercury combining with 4 grs - two protoxide forming the red and the black oxide

Calomel is the muriat of the black or protoxide and the corrosive sublimate is the muriat of the red or peroxide

The Dr says there is no difference in Submuriate of mercury they are both muriates one from the black the other from the red oxides

It has been called muriate mercurius sublimate dulcis & mercurius dulcis.

The mod calomel by mistake block
It was supposed that the common
Calomel was combined with liquor
ammonia and it became black
In prescription the mod cal-
omel should be added to avoid
a mistake with C. Sublimate
It should be white clean and
insoluble and turn black in the
liquor ammonia which ab-
stracts the muriatic acid and
leaves the black oxide
Calomel. opium tartar emetic
bark and cantharides in the
order in which they are named
would constitute the materia
medica of a physician -
No article in this class has been
so generally used - It has been
taken in the dose of 80 grains
without any bad effect Dr Lamb
has given 120 grains with great
benefit. but sometimes 2 grains
act as efficiently as 30 and the
Dr says he has seen 1/2 a grain
act violently 1 gr x to + oz 20
in a dose for an adult - The Dr
has often given 8 or 10 grains to
a child - Sometimes the article
is not sufficiently washed &
contains some little corrosive
Sublimate.

Calomel is prepared by totry Co-
rosive sublimate and metal
mercury and subliming the
together. may often the exact
balance is not attained and
it should be well washed
to get rid of the superabundant
acid — It is slow in its
operation hence we may give
it at night in the South it
is given in larger doses than
we give it and is said a
Southern constitution requires
more. this is doubtful —

If it does not act in the
course of a few hours a
child it should be followed
by a dose of castor oil — To
children under six years of
age It is allowable — but
this is not a sufficient reason
it should not be.

Of all medicines it is best
adapted to children years.
To all the important diseases
perhaps it is well adapted.
It may be given in broth
and butter. It must not
be repeated too often as it
may induce Salivation which
is a very serious affection —

Dose one year old from 2 to 3 grains
from 2 to 5 — 4 or 5 grains and
for an adult 10 to 15 grains
Sometimes fatty albumen is indicated
from a single grain. It therefore
gives confidence as well as holding
to persevere

The Phosphate of Mercury in the
dose of ½ a grain to any action.

The Dr says he might mention
other preparations of mercury which
have been employed as purgatives
the calomel however surpasses
them all —

Sulphur

This is found native — Native
is calling with Iron and copper.
In the shops it is kept in
2 states —

Roll Brimstone
Flowers of Sulphur
Lac Sulphuris

Native Sulphur is of a beautiful
lemon color.

When Sulphur is combined with
an alkali it forms the Iron of
Sulphur or Kepar Sulphuris
which is soluble in water. If
we precipitate it from its solution
with an acid — a white powder
will fall down which is the
true Sulphuris — This is of a
white color owing to its having

a small quantity of water.
hence it is called hydrate of
It posses no superiority over the
other preparations of sulphur.
The flowers of sulphur is found
by sublimation and it possesses a
slight degree of acidity which
arises from a small proportion
of ~~sulph~~ oxygen in the
unper oxided in the process.
If the sulphur is acted
to precipitate sulphur chemi-
solution with an alkali &
then is lime. Sulphate of
lime will be precipitated.
The flowers has been much
adulterated with flour starch
&c. It was formerly given in
doses of ten grains and was
considered as very powerful
It is common that most
metallic substances appear
to loose their colour by candle
light and if a bottle of
sulphur be not labelled you
may not be able to distin-
guish it as it appears white
The simple taste of sulphur
is unknown but the common
sulphur is considered a combi-
nation with hydrogen -

Sulphur is a gentle ferment a
the dose of ℥i to ℥ij it is supposed
to act by stimulating and in clear
ing an increased secretion from
the bowels hence it is particularly
useful in cases of constipation
and piles - It has been rec-
ommended in gout but the Dr
supposes it not better than any
other purgative - It is used in
the shape of an ointment for
the itch. this disease depends
on a poison in insect called
the itching insect. hence it
should be extensively used as
the shape of an ointment
When sulphur is taken into
the stomach it forms a sul-
phuretted alkali and a portion
of sulphuretted hydrogen is
formed which causes an offen-
sive odour of the stools and is
very disagreeable - In taking
sulphur the skin is evolved
from the surface of the body
This is another mode that med-
icines are taken up by the lac-
teals. - It has been long used
in rheumatism the Dr thinks
it is by producing an action
on the cutaneous system as
well as the bowels that it

pneumonia as well as in diseases of the
skin

The dose is about 3ij to be
given morning noon and night
in molasses & it has been
administered in brandy this
course and often proves successful.

The cold bath is to be
in the hand is supposed by
some to be antispasmodic
it is merely an electric shock
nervous. the heat of the hand
rarefies the sulphur in this
way causing it to ascend in
fumes.

A portion of some animals
eaten at the table is carried
and by some persons in their
pocket to prevent cramps
and if cramps attack them
they hold it in the hand.

Fumigations of sulphur is a
most ~~~~ consummate pica
for quackery. It is not so good
as the common vapour bath
& may create perspiration
and thus benefit may be
derived. or the fumes may
abstract a portion of ~~~~ from
the air this may prove of some
benefit as a tonic &c ~~

Lecture Dec 27th

Magnesia

Cal. magnesia is a mineral cathartic of some value. It has been called an alkaline earth but in more proper language it is a metallic oxide.

Lac magnesia just called our attention to it in Italy it is a light white substance and the magnesia of the shops is the carbonate. It is difficult to distinguish them unless an acid is used.

It is sometimes adulterated with chalk. this is easily known by adding sulphuric acid which will cause the magnesia but the sulphate of lime is insoluble.

The Calcined magnesia is generally preferred especially when there is flatulence in the bowels

It is not purgative. Some often unite it with some acidulated drink which unites with the magnesia and forms a salt that is purgative

The action of magnesia is increased by adding it with

Chemist a cream of tartar.

Carbonate of magnesia is also not purgative unless it meets with an acid in the stomach That in the shops is the Subcarbonate for the real carbonate is a crystalizable salt Soluble in water hence the Subcarbonate contains some alkaline properties -

It is often given after which lemonade is drank which forms a salt the citrate of magnesia

Neutral Salts —

are purgative and produce an increased secretion from the mucous membrane of the intestines

Sulphat Potassa

Sol. Polycrest - The sulphate is most soluble and is purgative by some. but it is more apt to purge from the quantity of acid. The only objection to the sulphate is its difficult solubility

Sulphate of Magnesia

Epsom Salts -

Sulphuric acid and magnesia are neither bitter but the salt formed from them is

very bitter - The sulphat of mag-
nesia has no disposition with the
Glauber salts. it is sometimes re-
tained when the last is rejected

Glauber salts is found after
many chemical operations pre-
sisted in making the muriatic
acid with the sulphuric acid
and the muriat of soda

~~A muriate to a solution of the~~
~~sulphate of soda Potash, &~~
~~with the~~

the sulphate of magnesia
potash & soda. the acid will
unite to the potash and the
magnesia will be precipitated

By dissolving the acidulous
salt that remains after the
distillation of muriatic acid
and heavy magnesia chalk
with it to remove the superf-
luous acid let it stand that
it may crystalize

Epsom salts is found nativ
in a cave in Tunstall and is
also obtained from some mine-
ral waters and from sea water
by evaporation

Glauber salts form in large crys-
tals. if kept stirring whilst the
crystals are forming they will
crystalize into smaller ones -

The glauber salts effloresces in the air — Dose of the epsom salts is ℥ss to ℥j or in the dose of ℥j to ℥ij The glauber salts has the same properties and is given in the same dose — The water of crystallization constitutes more than half of its weight and when in a effloresced state it is twice as strong and hence should be given in half the dose This would be the best way to carry it to sea as the objection is in this state it takes up less room. It may be made effloresce by heating it in an oven.

℞. Glauber salts ℥j
Tart Acid ℈ss

To be dissolved in a small proportion of water as possible and given it is divided doses in febrile diseases

Glauber salts has been given with lemon juice and cream of tartar to cover the taste but the Dr thinks this objected

It is often given in divided doses in febrile diseases and acts on the kidneys as well as the bowels

The Tart Emet combined with it forms a good antiphlogistic remedy

Rochelle Salts —

Is (supposed by adding) Soda & cream of tartar together. thus forming a Tartrat of Potash & Soda Dose is from half an ounce to an ounce —

Cream of Tartar
Supersalt of Potash.

Is a very useful and pleasant cathartic given with water or molasses. in the dose of about ℥ℓ to ℥ij It is frequently combined with jalap sulphur & and then forms a very useful medicine in cases of dropsy.

The cream of tartar contains an excess of tartaric acid which by adding Soda this excess unites with Soda and forms the tartrate of potash and Soda which is the rochelle salts. that has been mentioned now instead of saturating the cream of tartar with Soda we saturate it with potash which is the Tartrate of Potash or double tartar although this is not much employed in this country. Dose is ℥ss to ℥ℓ

The tartrate of potash is both cathartic and diuretic
The cream of tartar requires 60 parts of cold water to dissolve it and an ounce holds only 6 or 7 grains in solution Dry uniting it with borax unmasks the 1/15 part unites it very soluble but the acid of acid combines with the cream of tartar and thus we have the rochelle salts and we do not give the cream of tartar —

Phosphat of Soda

Is much weaker and is also much more agreeable and may be given in soup which is unobjectionable way to administer to a child
The dose of the phosphate of soda is from ℥i to ℥ij
The Dr says he might go on to mention other cathartics. but they are unimportant —

Lecture · Tuesday Decem. 28. 1824

Enema.

The word glyster was used or was originally employed to denote the injections of fluid into any part of the body but at present time the word is employed only to denote the throwing articles up the rectum

Watery fluids are used as boiled water — or purgatives as colocynthus croccus of antimony

It has been disputed whether they can be used to nourish the patient some say they do not reach the small intestines and consequently they do not nourish — Dr Mentions a case of a woman pregnant that was nourished by this means for several months — many facts similar are on record and these nourishing glysters are of the highest importance

Sometimes they are vomited up The use of glysters are first to have been suggested by a bird which injects itself — It is possible that a glyster often passes the valve of the colon but that they sometimes do is demonstrated by the dissection

They are sometimes given to obviate costiveness — to soften indurated feces. they ought to be repeated several times in order to wash them away completely

They form a very important domestic practice in France particularly an injection of senna is found in all their households

Their constant use has been objected to that they subvert the natural actions — when they are intended to expedite the actions of a cathartic it is customary to employ the decoction of a purgative plant as castor oil instead of the olive oil. It should be given as soon as mixed as the oil is apt to separate

Senna forms one of the best of injections 3ss to two pints of water boiled down to one pint and mixed with some salt some prepared soap (castile)

Is generally known by not giving a sufficient quantity sometimes. It is necessary to use a pint or a quart

It has been recommended to keep a clean tube into the stomach for the administering of medicines & nourishment

The nutritive glyster should be given in small and repeated quantities

The quantity at different ages may be computed as follows and yet is of use from a ℥i. to ℥ij

one to four years four ounces to fifty
4 " 10 " 8 " 10
10 " 14 " 8 " pint
Adults 1 pint to a quart

The apparatus is a Syringe of tin and bladder or a common pair of bellows.

Suppositories are articles placed in the mouth of the rectum. they excite action and discharge it's contents - suppositories of opium and but it is unsafe to be employed.

three times the quantity of that ordinary given by the mouth are used as suppositories. The Dr says it is too much as it is nearly as insoluble as the stomach

Anthelmintics -

These are medicines which promote a discharge of worms from the alimentary canal. The word signifies to against worms. the term is improper vermifuge is better -

The medicine has not the power of killing worms independent of their narcotic. cathartic tonic and mechanical powers -

Dr Rush supposes his opinion that worms may be salutary to act as Scavengers as hogs do in the streets. It is supposed that worms are the consequence and

not the cause of disease
when they exist in any large
quantities they may undoubtedly
produce unpleasant symptoms.
but many children have large
quantities of them and still re-
main in excellent health.
The Dr says that worms discharge
ignorious matter in the system
Dr Rush says they are sometimes
discharged in mucus & in small pieces
and he asks the question whether
in children are not in the worst
of worms? They are a most pre-
cious part of the creation
much more serious against
than sinning - but notwith-
standing these opinions the Dr
is by no means an advocate
for their remaining in the
system. he would when their
presence is ascertained use any
means to expel them; all he
wishes to prove is that they are
not the cause of the long cat-
alogue of diseases which have
been ascribed to them
The symptoms of worms are a
picking at the nose. convul-
sions pulling of the upper lip
and a contraction of the ante-
rior nares. but the Dr believes

that there is no pathognomonic symptom but the discharge. and suppose the common symptoms are owing to scrofulous affections existing at the same time -

[This doctrine is certainly false. as there is not a shadow of doubt that worms may cause all the symptoms and the others which have been enumerated. without there being the least disposition to scrofula. It has been said no individual is exempt from them and scrofula is not to be mistaken and again the symptoms of the latter disease. many of them are widely different from those occasioned from worms.]

They act by their purgative powers others by giving tone to the system. & some by mechanical operation & sometimes by a combination perhaps of several of these -

Vegetable Anthelmentics

Oils - as castor oil has been recommended. the quantity taken has generally been too small the oil both kills the worms probably by suffocating them & then purges - when they are killed they must be like other extraneous matter in the intestines and sometimes

they are digested and expelled by the peristaltic motion of the intestines. Castor oil should be given in the doses of ℥ij to ℥ij for adults and a table spoonful to children. It is used in time a Croton oil acts only by its purgative effects

Camphor. is sometimes recommended and is sometimes combined with valerian asafoetida &c. in doses of grains 1 to 3ss or take of camphor ℥ss a pint of water and ℥i of gum arabic — Dose of this a table spoonful. It is sometimes given in milk The Dr does not know that it has a certain specific virtues. but it is a good article —

Chenopodium Anthelminticum The whole plant — This is a native of the U. States. It is given in the form of decoction or that of the oil. The dose of the oil is from 1 to 5 gtt or 5 to 10 —

Male fern

Polypodium phyllop mags. Madame Nouffin's remedy. It was supposed known. that this constituted the basis but she followed it up with prompt doses of jalap and Rhubarb & this

was the most powerful part of the remedy - It is an ancient remedy but it was always followed up by an active purge -

Spigelia Marylandica
Pink Root -

The dose of the powder is from X to XX grains - It sometimes produces narcotic effects. It is most frequently given in decoction

It may be safely given in much larger doses than it usually is

The narcotic effect is ascribed to a little vein that grows round it but this has no foundation

The late Dr Barton says that this unpleasant effect is prevented by its union with Serpentaria but this the Dr doubts.

It is sometimes combined with an equal portion of Senna.

It is to be given every morning for several days in succession It is then to be followed by an active cathartic - The pink root has to a certain extent satisfied the public -

Dolychos Pruriens
Cowich Carriage.

The small spines growing on the pods are used it active is

mechanical - The ripe pears are
cored & sprinkled and if the
skin is scraped off with a knife and
given in a moderate bulk.
A child four years old once
swallowed by mistake 2 or 3
ounces which only acted as gen-
tle diuretic this is a test of
its safety - They are best prepared
for use in an electuary and we
should employ the article fresh.
Boiling destroys it peculiarities
and also simple infusion
in warm water. It is useful
in all the diseases of worms.

Melia Azedarach.
Pride of China

Its effects seem much to resem-
ble the Spigelia - and it is not
much employed amongst us.

Spts Turpentine

Dr Rush mentions this article
first as useful in worms.
It has been given in very large
doses from 3 to 6 ounces when
exhibited in these doses it ac-
tion on the bowels is so quick
that it is prevented from being ab-
sorbed. Some years ago a wo-
man took an insufficient dose
a day or two after she took
or swallowed with her cap.
Dr Rush first used it in large
doses principally and it was

Petroleum Naphtha. Senaka oil is an analogus to the turpentine

Muriat of Baryta.

Has been of late much used by Dr Chas mean Dose it employed — Nitre poisons antidote and the antidote is the Sulphuric Acid

Muriat of Gold. Has also been considered as a very excellent menstruge.

Dr Rush says he knows not a more effectual remedy than the filings or rust of iron given in very large doses of 1 or 2 drams to a child of four or to four years of age. — Its action may be ascribed to its tonic effects. Its addition to its ~~bile~~ bilious liquor which unites with sulphur and thus forms the sulphuretted hydrogen

The Dr has given the Rubigo ferri in the dose of 3i to a child ten years old continued for 18 months.

Chylebeate waters have been successfully employed —

Mercury has been given in many articles. Ethiops mineral is the most favorite it is the black sulphuret —

Corrosive Sublimate has also been much used but it is dangerous —

Calomel when given should be used in large doses. It excites the secretion of bile which is perhaps the anthelmintic.

Pulvis Stanni.

This evenly powdered is said to be an excellent anthelmintic the dose is gr x to ʒj in pills after several doses has been taken we give a purgative. It is said to be more effectual when amalgamated with mercury in this state it has been given in very large doses and as borne sup it may be given to any amount.

Lecture Decem 30 –

Worms Three sorts found in various parts of the body. the lungs brain heart in the coats of the stomach intestines and bladder. the eye ear nose mouth brain spleen bladder. kidneys – In most of these situations they are out of the reach of medicinal substances.

Filaria is a thin flat worm long smooth together in bonds It has been found in length 40. 50 and even 800 feet. Obnoxious animal. they have a very high degree of temperature It is usually found in the small intestines

there are various species of the tunica
Blosh divides them into two Species
viz the animal and animated
The next species is the hydatis
hydatula tunica arenulosis - tunica
hydatidea - The third species is
the Brachiophorus - It has
been found by Brow in any
animated patients it lengthens is
from one to two inches in and
terminates in a rolling projection
which is the head - The fourth
species - It has a very great
contractility when brought near a
candle found in the organs this
species is round and flat
colored but this varies sometimes
to black yellow &c -

Worms are peculiar to no age
as we find them in the fetus and
in the adult but mostly children
are most subject to them -

Diuretics

Diuresis is the secretion of the
urine by the kidneys. diuretic
is said to signify a flow of blood
to the kidneys thus making them
to secrete more urine
Diuretics has been said by some
to be analogous to purging &
diaphoretics and they are often
found to be much effected by
each other. the amount of

water taken into the circulation is the only cause of diuresis
The blood must necessarily require a certain standard and if this be wanting diuresis cannot ensue. and there must be a certain relation proportion between the fluids and solids in the blood for to constitute the health. a slight deviation may occur without (being) any prejudice to health but not an excess -
Several of these articles have been detected in the urine after they have been taken. the odour of asparagus. garlic. onion and the spts of turpentine gives a signal of a right to the inference that they have been absorbed - and the Dr cannot conceive of any connection that can exist between the stomach and kidneys except by the nerves and blood vessels and the impression cannot be conveyed by them directly from one to the other The Dr is of the opinion that they are carried to the heart by the blood vessels - & there and there first alkalies have been detected - The other opinion is that their impression is conveyed by a kind of affinity particularly to the bladder by means

of sympathy. — Many articles that act on the kidneys are taken for sentiments as blisters are additional proof that medicines enter the circulation — The Dr does not think that medicines act primarily on the stomach and then are extended to the general parts by sympathy I do — It has been said that Iodide tobacco and some other articles could be detected in the blood or urine but we have no test which will detect them in any of the fluids — When Iodide and tobacco poisons they lose their characteristic effect. It is not known why one kind of kidney acts on one kind of fluid and another kind another kind

The action of the union of calomel and Iodide on the calomel stimulates the absorbents to a more vigorous action and hence they are enabled to take up the Iodide

If fluids are taken into the body they must be disposed of in one of three ways by the skin kidneys or bowels or else it must forcibly way into some of the cavities (producing dropsy) It follows then that water is always a proper vehicle for diuretics

It has been found that in some

cases instead of being gain of it will terminate in the watery cavity and in acute dropsy but experience proves this to be erroneous as water has cured dropsy alone

Dropsy may be occasioned by a too great action of the blood vessels or a diminished action of the absorbents. or by a want of power of the absorbents and an increased action of the exhalents.

Dropsy is cured in each case by different means. Since the different causes can be removed different remedies for it are

The success of diuretics in every dropsy is very various sometimes one will succeed at one time and fail at another & other you more will cure —

Though the swellings may from mistake be removed yet they will soon return in other cases though diuretics is proper as it has no effect on the swellings

There is no apparent reason why large evacuations by urine should not prove useful in reducing vascular action as well as evacuations of other kinds

Diuretics have been supposed to prove beneficial in diseases

of the lungs both acute and chronic they are of great benefit & yet the Dr is wrong to them occasioning disagreeable - They should carefully be given through the day and we should not blister a long in the action of a diuretic as we would be likely to stop its effects.

When they are employed we must cautiously guard against ~~the~~ worms lest we rise the patient out of the

water all mineral waters are of this kind true to increase the quantity of watery fluid in the blood and hence the action of the kidneys

The Dr mentions a case of dropsy which was cured by long draughts of water - If any article acts directly says the Dr it must be water Water is never employed alone and he mentions it as that it increases the action.

Sub. Carb. Potash. has long been used in a state of lye but why it should be employed in preference to the salt as it is found in the shops the Dr knows not. Dr Cullen says as third Salts are somewhat stimulating when they pass off by the kidneys and thus prove diuretic, Now in this opinion the Dr agrees

for if a very small quantity is taken orally they are much diluted they have but a very little effect on the kidneys - The Dr has a doubt whether the salt of tartar can reaches the kidneys for it can hardly help uniting with acetic acid in the stomach and thus rendering it inoperative it is doubtful whether this stuff is decomposed. It has chiefly been employed in dropsical cases attended by a disordered state of the digestive system and this is the state in which it will be most apt to unite with acid. Cullen gives it with bitters as tonics — and he allowed that bitters absorbed the acid but this is unfounded they give tone to the stomach and prevent the acid from being evolved

Lecture Jan 3rd 1825.

We find of 1000 parts of urine there is 933 water. The rest consists principally of uric acid phosphates. Sulphates lime & magnesia - There are two ways in which water may be added to the blood - First by external

means and secondly by absorption from some of the debris in the stomach

Potash when you can get pure potash a crystal of potash in the stomach The dose is according to the age of the patient grs 4 or 5 to 40 may be given 3 times a day in ~~debrisis~~

Acetat of Potash

Sal. Diuretic. This is sent into disuse - It has failed in some hands because given in too small quantities - The common dose is ℈i to ℈ij or sometimes more in the dose of ℥ß It increases watery stools

Tartrat Potash -

Soluble salt - This neutral salt and any soluble it may be suspected when the cream of tartar or the last form it - It is extensively used in dropsy but it is ~~the~~ apt to injure the tone of the stomach - The dose is ℈i in urine would prove purgative -

Cream Tartar - Is given in two ways largely dilute when we wish to produce diuresis and not to be when we wish it to purge It is not very certain in action is various. It is a truly useful

in cases of high action - The dose is vomit & it is often combined with Jalap -

Nitrat Potash

Nitre - A Neutral salt prepared by uniting the oxygen animal and vegetable matters to a calcareous base - It has a sharp and cooling taste. It can be detected in the urine

Dr Rush gave 2 ounces dissolved in a pint of water and gave it in doses of a wine glass full every two hours a day - The common quantity is ℥i in a pint of water - By long use it ulcerates the lining membrane of the stomach. It has been given for glauber salts in mistake the tests are it does not effloresce like glauber salts does and when thrown on the fire it burns with scintillations

When the pure Sulphuric acid or nitric acid is given ℞ but no action takes place with the sulphate of Soda. Then tests are of no use if taken by mistake -

Sweet Spts Nitre.

This is merely a solution of nitric Ether in alcohol and is made by adding one part of nitric acid with four parts of alcohol.

This is given most frequently to children and is found in almost all febrile mixtures. It is seldom needed to alone in dysentery — What it might do in doses of 3ij or more than 3i is not prepared to say.

Squill

The Squill is used in powder in Syrup. vinegar and oxymel.

The dose of the dry root is from one to two grains. — It is useful when combined with nitre and with calomel — The following prescription is said to be very useful in hydrothorax.

℞ Calomel gr i
Squills ij

It is one of the most active and useful medicines in the shops.

Polygala Senika

Milk Root. Rattle Snake Root —

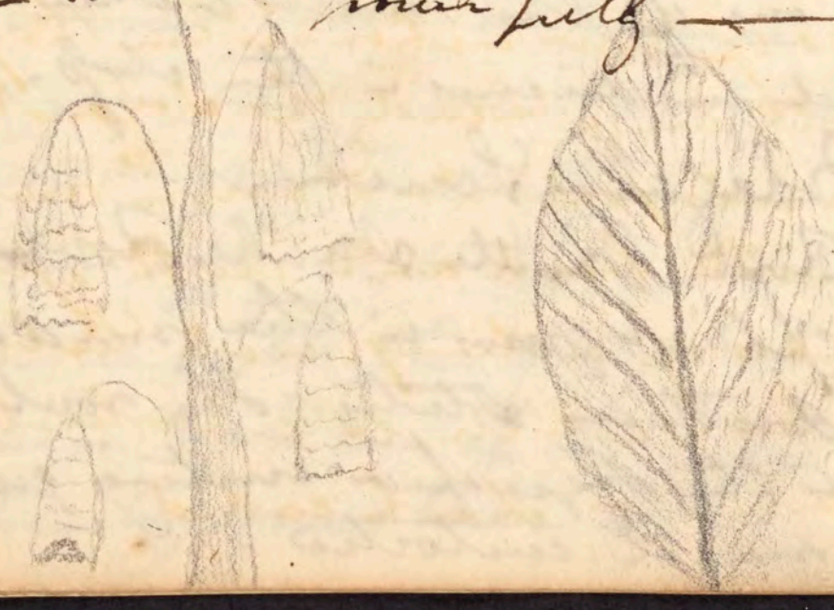
This plant grows in the middle and Southern States — The root is about the size of a writing quill and much contorted.

The bark of the root seems to be the most efficacious part - Cullen says it carries the cathartics -
It certainly has succeeded in removing the water of dropsy as promptly as any other article of the materia medica
It should be given in any strong infusion - It is effectual when used twice It seems to act on the salivary glands but the Salivation is different from that produced by mercury Dose gr 20 to 40
Of the decoction ℥j to a pint boiled to half the quantity the dose is a table spoon full every fifteen minutes

Digitalis Purpurea

Purple Foxglove -

It has an oval leaf resembling in shape that of the mullein but the latter is covered with a downy wool It is known it is of a considerable size and it grows fully —



By injecting into the veins of a
strong a drachm of water & stock
it produces a slow pulse, vertigo
convulsions, trembling of the muscles
and death. in about 15 min.
This fact is worth a very strong
dose will increase the pulse
and if continued for some time
it produces inflammatory fever.

Lecture Jan. 4 —

Foxglove is used in pneumonia, tuberculous &c. This last
is said to act powerfully and
principally on the brain
Wichila concludes that digitalis
is far from deserving a rank
among the medicines which
particularly reduce the action of
the heart — Mr Wistar thinks
it to purge and when it did
it lost its diuretic effect. He
used it much in dropsy — In
cases of low action when the pulse
is full and hard he says it is
not useful Dr Darwin combines
it with bark and with opium
in cases of intermittents Roberts
the last article is a valuable
addition in such cases

Dr Rush was not favourable to it
Cheerful but one case in his practice
this was in a robust young man
The late Dr Barton says it is
better in ancasco than in ass
ites - The state of the system is to
be attended to before one use it
while the pulse is full & hard
it is generally improper in such
cases venesection should be
premised.

Of its mode of remedial operation
no positive data in nature
to fix its action is to raise the pulse
as proved by Moore. 3½ grains
raised the pulse 8 strokes in 15
minutes - It is analogous in its
operation in many respects to
opium - It produces perspira-
tion raises the pulse. Impairs
it has a diuretic and narcotic
Necessities vertigo. noise in the
ears &c -

How it operates as a diuretic
is not very clear whether it
stimulates the kidneys as Sug-
gested by Darwin is not well
known. - It sometimes in
doses similar effects to those
of acid not opiate.

should take for a month 40 drops
3 times every day in the first month
but. The symptoms induced
by it are nausea vomiting pain
convulsions. stupor delirium and
profuse discharges of urine and
death. Whey of wine. of pain
brandy. vol alkali should in
this case promptly had recourse
to. — Sometimes its effects does not
come for some time then all of
a sudden it develops its action

Dr Beddoes was the first who
ascertained that the pulse is affected
by differently from the different
positions of the body. after a dose
has been taken the effect of the
pulse when standing is 100 when
sitting 75 and when lying on the
back it fell to 40.

The leaves should be gathered when
the plant flowers and dried in the
shade. given in powder tincture
and in decoction or infusion It is
used in gout and in rheumatism
and is abound all in phthisis

It has been substituted for bleeding
in hemorrhage. and has acquired
some reputation but it might
have been given when the symptoms
should have subsided of themselves — It is a very unpleasant

tree as it sometimes takes days
and ceases to produce its effect,
and the Dr would never use it
except as a collateral means &
even then it is not of much
use - Dr Chapman has seen
the hemorrhage increased by it
in one or two cases

It has been said it may suit the
phlegmatic - also said it relieves
angina pectoris. croup and some
other pulmonary affections

It was long regarded as a specific
in pulmonary consumption
and a vast number of cases have
recommended it. Dr Rush
stating that disease does not
resist one

If it were possible to collect the
victims ascribed to it by Bateman
and others how does the aspect
that one fourth of the inhabitants
of Great Britain die of this
disease - all the affections of the
lungs are not to be considered
as consumption suppuration
pain tubercles is different from
inflammation of the lungs and
they very seldom heal

Digitalis has been used in many
disorders of the urinary bladder
in Syphilis Bateman praises

A is dyscrasia. It had been used in scrofula without much effect

Preparations. Dominis tinctura is made ℥j to ℥viij of alcohol The dose is XX drops — It may be given Saturata ℥j to ℥vij but this is not twice as strong

The decoction is made by boiling ℥10 of the fresh leaves in 2 lbs of water to one pint. The dose is ℥ss any two hours.

An infusion ℥ij of the dried leaves to 8oz of boiling water to stand four hours then add ℥j of Spirits to keep it The dose is ℥ss two in a day.

Nicotiana Tabacum

Tobacco is a dangerous diuretic and we have many better. It is used in decoction ℥j to a pint of water The dose is X to XV drops

Baldom Copaiba

is procured from a tree growing in Brazil by incisions in the trunk that obtained from the young and vigorous is not so good as the older trees yielding the best. - when flowing from the tree it is colorless fluid by exposure it becomes of a yellowish color as we find it in

Dose - sometimes from thirty gelatinous pills which is either adulterated or prepared by boiling It is supposed to apply it is alcohol. It has a disagreeable smell and taste - It is said hogs. Gather them wound with it they strike their tusks into the tree Copaiba officinalis and let the balsom run into their wounds

It is supposed to be a compound of rosin and oil. Nitric acid acts upon it vigorously. Benzoic acid has not been found in it Since it should be sunk with the turpentine as it bears a striking resemblance to them but it does not produce the violet smell in the nitric as turpentine

There is no true test of its adulteration and it should not be oily - The dose is about 3i sometimes more. It is most generally used in diseases of the urinary organs as gleet gonorrhea - The Dr thinks 3ss of turpentine quite as good as the balsom of copaiva.

It is exhibited with Gum Arabic or mucilage with a drop of spirituous oil

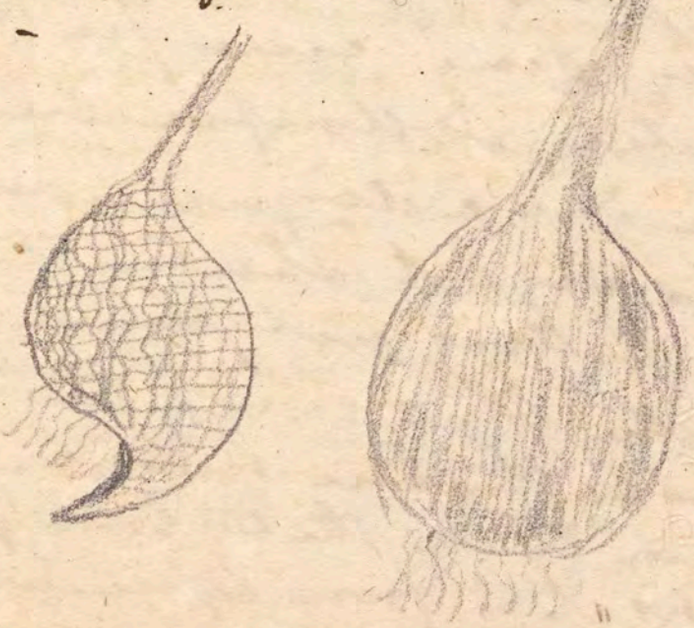
Langni found the use of a patent
55 years ago. in the preparation of vaccine
by the following R Vini ℥ij
Sodæ Lemon. ℈i
Ol. Tartr. ℈i
Pot Salt - ℈ss.

gutt X -

Lecture. Jan. 6-

Colchicum Autumnale.

The colchicum shoots up and flowers
without any leaves and is called in
Great Britain the naked lady
Root is a solid bulb and has
been used as an amulet.
other bulbs have been mistaken
for it one certain mark of distinction is the nail like process
at the bottom. it exists in no
other bulb but that of the colchi
cum. a medium between all of
them larger or smaller than this pro
cess -



This plant in all its parts an irritant poison for if taken into the mouth it corrodes and ulcerates it also the intestines occasioning bloody stools

Of wine of Colchicum

Stoerck who first prepared it from the fresh he called root he used the action alcoholic externally as a liniment application and from many experiments he concluded it was a powerful remedy. used it was most useful in dropsy. he also used it with the acetate of potash with Lyttas Nitro dulcis and sometimes with hemlock. a conserve of the syrup of white poppies

The colchicum lately into dispute but of late years it has come much into use —

The Edinburgh Medicinal was discovered 45 years ago and it has been found as a sure cure for the gout It is emetic diaphoretic and narcotic it is a dangerous remedy Dr Jones says it shortens the pains of gout but it does not prevent them. whether the vinous tincture of colchicum in the Edinburgh Medicinal or not is more than the Dr can affirm but thinks it is from experiments made some years ago —

The colchicum flowers late in the fall after the leaves have fallen

It is perennial and grows in meadows and sometimes in cultivated in our gardens

Haller says he found the root void of acrimony and dose & by they have eaten the whole bulb without any effect — It is found like the squills to be both aperient and diuretic

It has of late years been asserted that colchicum forms the basis of the Eau Medicinale which was discovered by a French chemist — The English and French chemists declare there is no such substance in it — It appeared to be a tincture of some bitter herbs in Spanish white wine It is a powerful remedy and was prohibited in France but was soon restored again and it the gout was discovered by accident

It pulls down is said to relieve the pain in a few hours and it creates considerable nausea. many suppose it does not evacuate radically but only shortens the paroxysm and some say the paroxysms are rendered more frequent by its use — It often purges vehi

actively — The Dr declares that it has produced very salutary effects when continued for some time and that it is certainly strong ground to suppose from the base of the Cinchonaceæ

Sir David Hume mentions some injurious effects which were caused from the use of this material, but this is owing to a noxious principal which precipitates from the tincture

It is obvious that the older this medicine is the better it becomes because we can get rid of the noxious part of the plant

Class 10 —

Pyrola Umbelatta

Ipsissima. Winter Green

This grows Dalmont all on woods

The preparation should be prepared when the leaves are in full vigour and before it is covered with snow and ice

rubrum mottle — It is said that
cattle of Assyria have been
subject to it in Canada.

It is seen in horses or cattle
suckled by Scotchmen in strong
decoction — Dr Barton thinks
it a powerful antheluntic medi-
cine and is used in febrile af-
fections even in typhus fever.

The Dr considers it a very valu-
able but we want other testi-
mony before we place it in the
materia medica. Dr Bar-
ton places spirit camphorat-
in this class but they deserve
more distinct and thier own
place in the compendia.

Canthari des
Lytta vesicatoria
Meloe vesicatorius
Canthairides vesicatoria

The active principal is cantha-
ridine soluble in oils. the proces
is to boil the canthairides in unrec-
tified oil of turpentine as
that is volatile. this is to be
evaporated. boil the residuum
pulverised in alcohol until taken
up all it will — It is then dis-
solved in ether and the cantha-
ridine is obtained from this solut-
ion by —

The Spanish flies are of a greenish bright color with a peculiar nauseous smell — When alcohol is digested on them it becomes of a yellow color and forms the tinct of cantharides. It taste is acrid It has been injected into the veins of dogs without producing death.

By Orfila & Boyle the latter injected into the right jugular of a mastiff dog strong tincture of cantharides the dog fell down as if dead the servant gave him pint quart of water and the dog avoided a great quantity of yellow urine he did not die until the fourth day — another dog which had no water died in five hours —

When cantharides are introduced into the stomach they act by corrosion producing nausea copious vomiting pains griping bloody urine sometimes bloody stools and death Organs turning are sometimes found in the stomach and in many cases inflammation of the bladder —

Alexander [illegible] is just as a Medical remedy — It is very ancient and much diminished statements have always prevailed in regard to this article — They have been used to produce abortion.

Lecture

Jan 7 —

Our country has of late years produced an insect equal in properties to the other — this is the

Lytta Vitata or

Potato fly was introduced by Dr Chapman of Bucks County — what is said of one will apply to the other except the species which is different.

The Dr is not satisfied that this article should be ranked among the diuretics it is true it stimulates the kidneys and sometimes induces bloody urine A remedy acts as a diuretic when any much debates — Gin is a diuretic it seems to be particularly directed to the kidneys and from circumstances which we cannot explain it unites with only a portion of the urine this is called diuretic but the Dr cannot give with

Urine for there are no facts which support it and there it is better to own our ignorance

It is determined to the kidneys and acts by some specific affinity - In this way I should attempt to explain the action of mercury on the salivary glands & the cantharides stimulate the kidneys to an increased action but there must be a sufficient quantity of fluid in the blood to enable it to act as a diuretic

A dropsy is not always accompanied by an increased quantity of urine if it was it would be impossible to give a diuretic for one might burst the bladder

In Dropsy it is said to know when urine is done if 3iij to 3iv in the day with evidence of diuretic effect. The evidence on these facts in dropsy is very contradictory hence we should never give it solely to the intention of evacuating the water.

Sydenham mentions a case of diabetes in a girl who dis

charged 3 lbs of feces and urine in the day while the food and drink amounts to only 7 lbs.

It is probably from absorption on the bladder and these parts that it is of more benefit in gleet and gonorrhea or leucorrhea. This is not a modern practice in how much evidence of its use in these affections Dr Robertson prescribes urea & authorities 3ss in 3vj of water he prohibits it use in persons who are predisposed to consumption and glandular swellings. Dr Cummow XX gut of the tincture twice a day & increased it to 100 per day.

Dr Baton used it in 3ij thus it has been abounded in yellow fever. but pro domestic used it. the Dr says that he would not begin with more than 3ss/ for an adult dose.

From what has been said the Dr concludes that water is the chief article which in many substances acts as a diuretic — If in giving diuretics we find them is not so much fluid discharged as the drinks taken it is owing to an injury. and if we make the kidneys act without introducing as much fluid to the blood we will also do an injury

Antilithics

We cannot believe that there are any medicines that deserve this name. but there is often so much benefit derived that we cannot expunge them from this class.

Our knowledge of any drug called one has been tried through 2 stages - They have been found in the urinal glands & in various other situations -

It is necessary to admit in the first place the origin it has been tried analyzed but no two chemists agree. It consist of two principal ingredients. First in 100 parts there are 933 water and 30 urea and of lithic acid one part. 2. Earthy salts parts. Sulphate of potash 4. Sulphate of magnesia 3/2 parts and muriate of soda 5 parts. and also various other salts a small portion of fatty & — In a diseased state we also find fibrin globules of the blood & —

Stones may exist in the kidneys prostate glands or in the bladder. The formation of calculi most frequently begin in the kidneys they may be formed upon various nuclei accidently introduced as

bulbits. medullæ oss &c. They are sometimes contained in distinct cysts lining the mucous and serous coats of the bladder. The concretions in the prostate glands are generally numerous and not larger than a pea.

Women suffer as much as men at least the operation is not so frequent required. Blomfield dilates the urethra of females by means of a sponge. so that the stone may be discharged in entire

Lecture Jan 10 —

There are different species of calculi writers have classed them as they appear in different parts of the urinary apparatus. this is not a good division for the same kind may appear in all parts. — The external appearance of the stone is of little consequence to us The pores are various always the bulk. color is sometimes brown grey. or almost black they are sometimes even often uneven

The medullæ generally consists of the usual species of calculi but often of foreign substances On breaking them we often find them strata of different kinds

Sylvester thought that the stones were formed from the water we drank

Scheele first discovered the chemical formation he thought they were composed of lithic acid.

Brandt gave 833 cases of lithic acid stone 294 Marberg 113. Phosphates 202. Alternating calculi 186 Compound 25. Cystic oxide 3 - Scheele found that urine always contained lithic acid and after depositing it in the form of a red powder Nitric acid acts upon it & it has been called uric acid but this is improper because the name neutralizes that of urea

lithic acid may be procured from fresh healthy urine by dropping any acid into it & in a few drops the lithic acid will be found adhering to the sides of the glass or bottle in the form of red crystals.

Stones seated in the ureters or kidneys can only be acted upon by medicines taken into the mouth and the medicines may act by making such an impression on the parts as that a disposition to form calculus may be destroyed After the calculous matter is once separated from the blood and contents the Dr observes that it is insulated

from the system and can only be acted on by chemical or mechanical means. — Injections have many times succeeded but sometimes they have been of much benefit. though bye colcula cannot be affected with by injections or other means yet colcula has been so blunted and the specula destroyed so as to render them able to pass out through the urethra.

Of the means of ascertaining the different kinds of colcula it is to make the patient always to urinate in one place and examine the sediment — one by evaporation by heat the principal is somewhat altered

after urine has been standing for some hours a [redacted] portion of lithic acid and phosphate of lime is deposited but by drying a little while decomposition takes place which is known by the fetid smell — An alkali precipitates the phosphates and if ammonia is used some of the ammoniacal magnesia phosphate

Lime water also renders it opaque. the precipitate —— the alkalies

are the proper remedies for the lithic acid calculus and the acids for the phosphates

If alkalies are taken into the stomach whether in their caustic or saline state they must be taken into the blood and in some one or other of its parts and thus it may be carried to the urinary organs. The Dr believes that acids and alkalies are both carried to the bladder by means of the blood but that the quantity which reaches this organ is so small that we cannot expect to derive any great advantage by them but we may submit the disposition —

Lecture [illegible] 1825.

The same employed in calculus Pulv. Soda. Aq. Soda. Lemon and the acids

Muriatic acid may be given in the dose of 5 to 10 to 20 drops twice a day —

Carb. Soda. is commonly given in soda water but it may be given in the dose of 10 or 20 grains in pills two

a time twice a day. The artificial
mineral waters is no better
than common water impregnated with carbonic acid
as the use of carbonic acid it
seems to be a proper vehicle
to carry the alkali to the blood.

Magnesia has been much
recommended in calculous complaints but the Dr believes
it to be too highly rated and
is seen a source of pain
magnesia is mainly an alkali
and one of the most common
calculi is composed of this substance it sometimes accumulates
in large masses in the urinary
when long retained

Our practice must be greatly
influenced unless we can get a
piece of the calculi and analyse
it ourselves

Dr Percy of Manchester mentions that Spt of turpentine combined with opium is the best
treatment of a gleet which produces
a plentiful discharge of bilious
urine, but the medicine is one
of the driest which has been
used in these affections
Some encouragement

those cases made by ourselves.

Dr Dorsey treats this gastralgia and with some success.

If we cannot obtain a knowledge of stone without, we may inject a weak solution of caustic potash or an acid examine it when it returns — Frequent injections to have an effect and be they should be of such a strength as they can be conveniently swallowed one begin with four or five drops of an acid to eight ounces of water gradually increasing it to one or 15 drops ——

The French use for their injection a tube with two bulges from which they can push the injection matter in and out at the same time.

Lithontriptics are medicines which have the power to break down the stone. The term is improper because there are no medicines capable of doing this. Both Celsus and Cops a man had a nostrum which would always cure these affections and that he had no doubt but that he was in hell

for not communicating this fact
when on his death bed for the
benefit of his fellow creatures

That some persons are more liable
to this disease than others cannot
be doubted what it is that gives
rise to this calculous diathesis
is not known - it has been
ascribed to gout dyspepsia
but we find great disposition
to both of these without any dis-
position to calculi

The only certain antilithic is
the operation of lithotomy -

Calculi is to be removed by
bleeding purging and mucilaginous
drinks. Soap has been recommend-
ed as an antilithic but it can
only be useful from the alkali
it contains

Lime water has been ordered it
has little effect and what good
it can do can be done with
more ease from the alkalies them
selves - Dr Cooper prefers the
Nitric to the muriatic acid
and mentions two cases in
which he used it internally
Acids are supposed to be found
in urine in these cases but they
are not.

Many bitters are a astringent have been used as a tonic modes of Prunus have been considered by Cullen supposed they absorb the alkali in the stomach. but the acids should be the proper remedies

Arbutus uva ursi.

This was first recommended by Linnaeus it is a small evergreen shrub of a pale green on the lower surface of the leaves - It abounds abundantly in tannin and a gallic acid seems not to be abundant.

It grows in Europe and in part of America from ~~3~~ 1 to 3 may be given to an adult 3 or 4 times a day Linnaeus gave it in doses of 15 grains but this is too small Barton gave it in doses of 60 grains and thought it applicable to those cases accompanied with putrid exhalations - It contains tannin in some cases to relieve pain especially when combined with opium. It is also used in the gravel dysuria. bloody urine &c in consumption but it has not done any good - It might very well be associated with some other astringent medicine

Polypodium Umbilicatum
was thought by Dr Barton
to be equal to the ipecacuanha.

Humulus Lupulus.
or the hop has been recommended
by some and denied by others it
may be dispensed with as an
~~antilithic~~

Malt Liquors. are highly
recommended —

Lecture Jan 13 —

Daucus Carota.
This has been used as an antilithic
and as an external application
to ulcers to prevent mortification
It is powerful diuretic. The
root the seeds and the expressed
juice may be taken to any amount

Onion & Garlic
are powerful diuretics
garlic contains a volatile principle
allied to camphor and sulphur mutter
The only light in which these
medicines can be considered are
only as purifiers —

Diaphoretics

Diaphoretics are medicines which promote the discharge of sweat

Diaphoresis is derived from the Greek words dia & pero to carry through and includes all the those medicines that increase the insensible as well as the sensible perspiration - If is not a perspiration diaphoresis is perspiration.

They are divided into internal & external — The obstruction of the perspiration is productive of various diseases

Sanguine mentions yellow bile and the serous humours. This must be done by the different compositions in the blood and perspirable has been found in the blood - Perspiration contains water. carbonic oily matter and sometimes an acid and even urea Modus operandi

Cullen supposes that they act by exciting the whole vascular System to increased action but in as the vascular System may be filled & distended without producing heat.

They remove the constriction from the extreme vessels when it is

so as to ~~[illegible]~~ diffuse it.

The kidneys and skin is the chief organ in which water is eliminated from the system - They are both excited by substances taken into the stomach such as tokay beer draught & even water & also perspiration

Cooling is to be avoided as it obliges the patient to wear fur which he should not

Is to be kept from the cold

In general avoid diuretics as the two organs mutually assist each other

They obviate internal congestion diminish action in the internal system and excite the action of the capillary vessels.

Any of the natural fluids when they get out of their proper situations become morbific

Application - In fever Sydenham disapproved frequently of application

In intermittent fevers in order to prevent the recovery from the stimulating articles used the cold & evaporating lotions are little used

In typhus as it occurs in hospitals & camps & they have been much used. Cold affusion

and also to be used in typhus.
The treatment of typhus in this
country is by some preparation
of stimulants by others preparations
of diaphoretics.

In many of the phlegmasiæ they
are strongly useful in rheumatism
and when in those occasions
to use opium for the pain some
diaphoretic should be added to
it.

Lecture Jan 14 –

The ancients used them much
in empirical diseases and they
not one of them in which society
is not proper under particular
circumstances.

They are useful in relaxing
diseases but they should be
used with caution and gen-
erally are to be preceded by
evacuants

Ipecacuanha and Antimony
have been used in small doses
with good effect – In many
cases the stomach is so irrita-
ble so as to prohibit their inter-
nal exhibition than they
[illegible] by external means

are to know accurately too. One might suppose dyspeptics advantageous in as they can use in any light crust but full with drinks and it is said that they are removed again on the continuance —

Rhubarb used thus in dyspepsia & proves much benefit the Dr thinks that dyspepsia is a symptomatic and not an essential disease

External applications

Heat and moisture or a combination of the two is useful to produce sweat

Coal has also been recommended for this purpose.

Application of chemical substances and friction the last is a remedy much used by the Hindus

Use plenty of bran rub hard with & hearty on the skin in contact with the patient

The vapour bath & the warm bath this last the Dr does not think much of [illegible]

The steps of iron. Heated air and the patient should drink freely of warm teas. this it will be seen is an internal remedy

The Dr thinks ~~that~~ we cannot know that morbific matter is not sometimes eliminated by the skin by sweat.

Cold applications can only be exactly applied to produce diaphoresis in a case in which there is much an excess of temperature

Internal Means.

Diluents as many of the teas they act by diluting the blood

Most acetates produce diaphoresis on the same circumstances

Nearly all the antimonials here been used but the Tartar emetic is now generally preferred

R Vin Zi
T. Emet gri

To be divided into iij or iv Powders

The Dr cautions us not to mix the whole of the water with one grain of the tartar emetic at once because we cannot do it as well as with separate portions

The Antimonials is only subservient to the watery solution is because it keeps better — It is generally joined with the Opts

of nitric diabetes and is much used in all fevers - Antimony is considered an expectorant emetic & diaphoretic.

Dr James Powder is an oxide of antimony with phosphate of lime called the Pulv. Antimonialis. The dose is 5 grs it is given in the form of a pill as it is insoluble in water.

Precaution This is made by taking an ounce to a pint of wine the dose is ℥j

Precaution Dose ℈ss to ℈j It is sometimes combined with nitre it effectually It is often combined with chalk and nitre, but it is most effectual with opium - the form of

Dovers Powder

℞ Sulf. Potash ℥ viij
Opii
Mucilag ℥j

Opium is also placed in this dose and it and the precaution would do just as well without the sulphate of potash - Dovers original receipt was quite different from the one now in use. The dose is from 5 to X grns - It is used in Rheumatism and in dropsy and in various other diseases ——

Lecture Jan 17

Take the ~~vitriolate~~ tartar and nitre and deflagrate them in a red hot crucible and add a certain proportion of liquorice This was perhaps nearly the same substance as Dovers powders but it was given in much larger doses Dover gave 80 or 100 grains or more.

When Dovers powders is taken the patient should not drink much water as Dover tho he says it tends to produce vomiting - The medicine seems well suited to cases of fever. even when attended with some action but it must even in such cases the nauseating should be pursued.

It has been much prized in gout but it is as a compound with violent action It is not beneficial until nauseations have been pursued - It deserves more trial in dropsy Dr Chapman used 2 or 3 cases with it

It has been used in deputies & may perhaps be useful. Sweating in itself no advantage in dropsy. How then?

The Neutral Salts. have nearly all been used as diaphoretics but they depend much on the

dilution. A litre should be added to any large doses as a diaphoretic

The common Salvia officinalis drought made by saturating half oz of tartar with citric or tartaric acid they are usually eaten the cold and fasting and drink take about 20 grains of salt of tartar to 3i or 3ij of water & lemon juice or vinegar.

Citrate or Acetate of Potash

The dose is 3i diluted into several doses and taken every hour or two -

Almost all the salts of ammonia - are diaphoretic more or less - only on the mentioned the Spts Mindereri

Acetate of ammonia

This is celebrated in febrile diseases & is made by saturating the carb. of ammonia with distilled vinegar - It is liable to be of various strengths as the vinegar varies the dose is 3i every two hours

It is better to permit with the carbonate simply by putting the ingredients in a stone vial & when it begins to act stop it tight - It may be added to lemon

Cuphea Cam[illegible] or antimonial wine it does not keep long.

Camphor has been frequently employed but it should be removed from the class of diaphoretic Calomel. Muriate of Ammonia has also been employed —

Eupatorium Perfoliatum.

Bone set Thorough wort &c

Every part of the plant is medicinal Dr Barton says the flowers are most so — It is tonic diaphoretic & purgative — It is an erect plant about 2 feet high hairy and perforated by the stem Taste bitter — It is rather a stimulating diaphoretic — It has long been employed in intermittents &c and the Dr thinks it is one of the few plants that deserves praise It may be used as an emetic given in the dose of 1 dr to 1 oz grain & proves a slight purgative

It has been highly spoken of in yellow fever typhus and in pneumonia — [illegible]

Polygala Senega.

This grows in moist rich soil in the woods and in cultivated ground. The root is the part used in medicine. It is collected in the autumn and dried for use.

Guiacum Officinale.

This is a tree growing in the West Indies and in Central America. It grows to the height of 40 or 50 feet. It is called Lignum vitæ and the wood comes from Jamaica in logs and many pieces it sinks in water. The wood and the resin are the only parts used. It has no smell but it becomes slightly aromatic when the resin is totally extracted by dissolving it in alcohol. The resin is obtained by incision in the tree. Guaiacum is a powder insoluble in water but alcohol dissolves it readily. When exposed to the light it becomes green and by exposure to the air it turns blue again this is owing to the absorption of oxygen.

Tinct. Guaiaci is alcohol forms a deep brown solution and is made by adding water. Muriatic acid obtained from the tincture of

light grey color. - The alkalies & most all the acids act on guaiacum. The Nitric acid dissolves it but does not form tannin

There are three great distinguishing marks from uric

1st. The much larger quantity of carbon which it burns when acted upon when distilled

2 The peculiar action of nitric acid upon it it dissolves it into a brown and bottle nose

3. The change of color it undergoes when in Solution —

It is one of the principal articles of the Lisbon diet drink which has been a famous remedy in syphilis it has no effect in this disease

Cullen supposed the gum analogous to the balsams & from those considered it as an excellent alterative

It has been extensively used and much praised in gout but this Dr Smith it is only applicable to misplaced gout and this Dr S saw it benefit in chronic cases of the eye when there was a deficient secretion of the synovia in gout. The vision becomes impaired without inflammation

the vol. Tinct is then used sometimes with the tinct of asafoetida — It is usually had in tinctures than in two kinds the vol. tinct and the simple

The dose of the powder from 5 to 10 grains —

Savin

Dr Chapman ranks it highly but that Dr thinks it ought to be ranked among the stimulants or tonics — The powder and the tincture is principally employed.

The Dose The Adelphias December — and so with the tinctures the Dr says he might mention but that he thinks already perhaps attended the doctors for. For he says many of the remedies he has mentioned depends on their solution for their powers and it is necessary to enlarge the number

Lecture Jan 18th

Expectorants —

Dr Dick the Lecturer says of this class we might consider the Diaphoretics and Expectorants from some or other and we might call them which pass through the skin Diaphoretics and them which pass through the lungs in Expectorants Sometimes — They are those medicines which facilitate the discharge of matters through the lungs or trachea

Most of them substances are Diaphoretic in their effects and the state of debility in which they are given assists us that this is an important part of the remedy the same prompts the medicines act by increasing the determination of Fluids to the lungs — When mucus and other matters are collected they are only discharged by coughing and the action is aided by the mechanical Callan has compared this depletion to those medicines that bring up the fluids from the bronchia and trachea

Barton extends out this class also to them —

Callan supposed this class to

act by increasing the discharge of fluid which afterwards become mucus and other products which debilitate the person and thus render them more easily discharged -

Coughing is more frequent at this hour in this room than any other part of the day. Hence the Dr I think is very justifiable in his treatment - Many days there are morning ways till the discharge is increased

1st By removing the constitution of the tuberculous of the lungs thence anti hemorrhagics and tonics are the remedies

2nd. By increasing the action of the absorbents & diminishing that of the absorbents -

3d - By diminishing the flow of the fluids to the surface by which the quantity of fluid in the lungs is increased

What then may be the means in which the matter is thrown out by the lungs it is the action of coughing alone which tends to throw it up from the lungs, Hence through in what how medicines which assuage the cough yet we find these articles so useful in practice it is necessary to take a certain time remember -

Rules to be attended to

External warmth of the skin should be kept up because we cannot keep the skin cool without keeping the lungs so also.

Purging is to be avoided —

The first remedy in mentions is Venesection - This is only a diminished mode though it relieves pain and by rendering coughing easier it promotes the discharge It also relaxes the vessels.

Glycyrrhiza Glabra -

Liquorice grows plentifully in the South of Europe. but it is now naturalized in almost every climate - It tends to keep up the discharge of saliva

The roots are alone medicinal they are long - fibrous. sweet & lenitive - a little bit taste in the mouth It is used much in making up pills but is not so good as starch.

The juice vegetables principle extracted and called Sarkacol - It dissolves from sugar being not crystalizable and does not ferment as sugar does.

Some of the latin names should be memorized —

Liquorice is a useful substitute for Ipecacuanha

Brown Mixture

Liquorice ℥ij to ℥iv and boiling water ℥viij until one half is dissolved & is added Tartarised Antimony and Sweet Spirits of Nitre Dose a table Spoonful —

The liquorice can only be powdered in very cold weather and if warm weather it runs together therefore it is known by adding a small proportion of the powdered root — when powdered it can be rubbed up with cold water as well as hot —

The Sliperry Elm or (Ulmus) Ulmus Americanum

A rough bark and slimy and is an excellent domestic remedies

During the revolutionary war the Surgeons found it very useful as a poultice to gun shot wounds & ulcers & bad and malignant

It is useful also to allay irritations & inflammations — The opposition & contraindications in using it I shall mention

The infusion was used in drinking coughs and other diseases

Regarding it as an expectorant the Dr regards it as no better than an infusion of flax seed tea or Barley water

Ipecacuanha & Antimony
owe their powers to their emetic
properties as diaphoretics they produce
a flow of blood to the lungs
Digitalis and Tobacco owe their
increasing the action of the absorbents
The Squill Senicio &c should be
used when the action is weak atonic
ity &c when there is vascular action
Dose of the Squill is one grain

Lecture Jan 20th

Expectorants Continued
Some of the gum resins are used
as expectorants they are soluble partly
in water and partly in alcohol.
Asafoetida is expectorant and
antispasmodic

Myrrh—
This is a compound of gum and
resinous matter. which is brought
from Arabia. The color is of a
dusky yellowish - some what
this respect depends upon the ab-
sorption of oxygen. We have a great
smell and a little taste. The na-
ture of gum it is not known
It is a heating stimulating med-
icine given in powder from 10
to 60 grains or in tincture -

Amonia

comes to us in tears of a brownish color together. when pure it is white but changing to a yellowish color

It is partially soluble in water rendering it milky also soluble in ether — The plant grows in ~~the~~ Sabina — It is a stimulating expectorant. diaphoretic & it purges. It has been used in dropsy colic &c and has been employed with the view of destroying tumors Dose 10 gr to 20 — It has been used with success in cases of cotonchi and advised by Dr Redman

It is given in pills with emetic tartar.

Arum Triphilum

Indian Turnip —

This grows plentifully all through the country it is of the shape of a turnip and the skin on the bottom is marked — It has an acrid taste and almost caustic to the tongue but produces little or no effect on the system. by cooking the principal is volatile — The recent root is too acrid for use — The dried is used in croup phthisis &c. An ointment is prepared used in

time cepius. Some think it useful in old colonds and should be given in pills of a few grains

The Alkalies have much of late been used in hooping cough and are highly praised especially the Potash.

Persons give 2 or 3 grains of the Carb. Potash every 2 or 3 hours to a child 2 or 3 years old.

A common remedy is the Salt of tartar combined with the Peccanilla. They are generally given in too small a dose to be useful when a milk diaphoretic is required.

They act the Diuretic by discharging a small portion of acid contained in the lungs.

The Balsams have been long and much used in Pectorals - They are supposed after the action of the circulation is reduced.

Tolifera Balsam

Balsam of Tolu is obtained from the tree by incision - growing plentifully in South America (Peru)

The Balsom of Peru was for some time the favourite but this seems now to have the preponderance.

It is unnecessary to mention all the balsams for what we shall say of this will amount in a medical point of view to them all

Water has but a very little effect as a Solvent it is made into the form of a syrup by taking ℥ij of ~~tincture~~ to 2 ℔s of syrup. the Saccharine matter and the elements employed here is the chief remedy

We have then but 20 grains of the balsam to 2 ℔s of the syrup and of what efficacy can this dose. The tincture is used in doses of one or two tea spoonfuls Pure alcohol is employed for this is not a gum resin but is more akin to resin —

The Dr doubts whether any of these medicines is equal to the substitute to the steam of warm water this is extremely useful and always grateful. vinegar and water may be used in the same way

Many substances added but unless they can volatilize they can

have no possible effect.

Benzoic has been used in this way but it is not volatile and it has no effect whatever.

The same applies to the balsams but the Dr includes a small portion of benzoic acid in this case could one and this is one of the most acrid and stimulating articles.

Smoking tobacco has been used and it may prove useful in some cases.

Errhines.

Sternutatories — are such medicines that cause sneezing but there are some which produce the effect without sneezing which are mostly accidental.

They may be thus defined those medicines which promote a discharge from the nose whether mucous or otherwise — when a person sneezes he generally sneezes three times.

Headache opthalmia &c have been cured by these medicines and they are said to be sometimes useful to prevent apoplexy & palsy

The action is mostly local. & some of them cause inflammation while others do not —

Adarum Europaum

Asarabacca

It produces only two leaves which are unique and of any others — It is brought chiefly from the Levant

The plant is emetic & cathartic Diuretic and emmenagogue.

It has an acid bitter taste and a strong smell —

It is mostly used as an Errhine and forms the principal part of all the cephalic snuffs — It is one of the strongest articles of the vegitable kingdom not excepting the white hellebore

Lecture Jan 21st

Veratrum Album.

White Hellebore —

This was first mentioned by Hyppocrates. every part of the plant is poisonous The root has no smell but a nauseous acrid taste

It is said to cause griping nausea and purging even when employed externally to ulcers

In large doses it operates upwards violently and blood is discharged
It acts powerfully on the nervous system. It was used boldly by the ancients as a purgative in mania, melancholy &c and it sometimes cured without any discharge.
The disease in which it is most useful are those of the skin
It is rarely given alone as an Enchiridion but mixed with sugar &c.

Euphorbia Officinalis

A resinous substance procured by incisions in the bark of the tree
It is so strongly Caustic and acrid that it is unfit to be used as a purgative. It is rarely used in any shape. but it is a most powerful errhine

Inspissated Mineral

is recommended for some diseases of the eye now &c
It sometimes occasions salivation

Saturated Solution of Chlorine

In water is a powerful errhine
This the Dr says he discovered while he was professor of chemistry.

Sialogogues -

Are those medicines which increase a secretion from the salivary glands

Salivation is merely a test that mercury has acted on the system

We know but one such medicine mercury - many other substances act like the action of the salivary glands but they are merely local stimulants. almost any thing taken into the mouth and chewed is this sense almost any thing may be considered as Sialogogues A strong bad smell will excite it some into such places you should always avoid swallowing the saliva because if there are any morbific particles they may be spit out. A class of Sialogogues is not legitimately connected with the materia medica yet as mercury is sometimes used with a view to this effect the Dr mentions the class and comments this observation on mercury

Hydrargyrum is one of our most important medicines when shall we look for a

substitute for Calomel - Opium has been called the Magnum bonum Rush has called mercury the Sampson of the materical medica Galen says it is pernicious and good for nothing

Pliny considers it a true poison this was generally the opinion among the ancients

The Arabians first began to use it externally and then began to recommend stuff during the middle age. They used it as an application to kill lice &c — It was not known until the last century when found that its properties become only estimated

It is said by some to have been the first to use it internally but it was accidentally discovered by a Carpenter.

Paracelsus used it more extensively than any person before him the kind is the sixteenth century

Matthiolus first used it externally & the form of red precipitate

It was soon after used in pills The saline preparations then began to come into use.

and finally they got to the min
mind dulcus which when frequ
by sublimed was called Colomel
Turner appears to be the first to
use the solution of corosive sublim
mate to cure the unusual thir
Some suppose Van Sweiten was
the first
Fallopius says it was first giv
to cattle and that the slaves who
worked in the mines used to expel
their wastes by swallowing it and
afterwards evacuating it
It then began to be used in disease
and was given in very large doses to
overcome obstructions of the bow
els in its metallic state -
It was sometimes given in the
dose of 2 or 3 lbs. Turner gives a
curious account of it in great
Britain - It seems to have been
in very general use to purify the
blood people took it habitually
in various doses in its metallic state
[In about the same manner
people of our times take small
glasses of brandy &c in the morning
The mercury of commerce in the
adulterated state in which and various

other metallic substances and sometimes with arsenic and often in this state may be procured of much value -

Mercury is procured by distillation with iron filings

The active preparations of mercury are those combined with sulphur forming cinnabar the various oxides & salts - Then are two sulphurets the Cinnabar & Ethiops mineral.

Ethiops Mineral

Is made by triturating equal parts of mercury and sulphur in a mortar until the globules disappear - some suppose that in this process it becomes the black oxide but it is not well known.

Exposure to the air does not alter it but when heated forms sulphurous acid gas and a grey or dark violet colour.

As a medicine it does not any great effect even when given in doses of 3i or 3ij

Lecture Jan 24th.

Cinnebar

is prepared much in the same manner as ethiops mineral & sub

the process is operated by Chat who
treated it. pours the solution em-
ployed. It is used principally as a
precipitation in mineral Dyes -
These are the principal preparations
of the two materials -

Preparations of the Oxide.

There are two oxides the red and
black. — We can dissolve many
in nitric acid and precipitate
it by ammonia we then a grey
or ash colored oxide which is said
by some to be the black oxide uni-
ted with ammonia — It would
perhaps do as well as the black
oxide prepared by trituration
for various purposes —
The black oxide is mixed with chalk
and magnesia by trituration.
The red oxide is prepared by dis-
solving mercury in dilute nitric
acid and then evaporating it
until it forms the form of red
crystals - This is commonly called the
red precipitate but improperly for
there is no precipitation in the process
Each of these oxides unites with
an acid in at least 6 proportions
sub-nitrate and super of each
acid —

17.

Sub Sulph. of Mercury.

Turpeth Mineral

Take of mercury ℥x and of sulphuric acid ℥vj. Boil them in a sand bath to dryness and throw into boiling water when an orange colored powder falls —

It has been used in Swelled testicles glandular swellings and in Hydrocele — It salivates very easily Dose ij gr to viij or x as a Solvent gr ½ —

It is used as an emetic with Ipec in this way it has Salivation the authority of Dr Bond.

The Nitrat of Mercury is seldom used but as a test. It is an excellent test for muriatic acid then when this acid is in Solution if this be mixed with it a white precipitate of calomel will take place —

Corrosive Sublimate

This has been much extolled by Van Swieten and many others It has been mistaken for Syphilis All these preparations have the common effect of producing Salivation. I have known a person Salivated with half a grain of

Colonel. may by 2 grains and
some that could not be Salivated
by mercs — Surgeons at first
in Salivation become of a livid
color, the teeth loose and sometimes
separate. Small sanguineous
vomitings the tongue enormously
mortification takes place and the
patient dies

Mercurial Pill

Is made by rubbing up mercury with
some powders until the globules disappear — In the mass of mercury 5 grains
contains 2 grains of the mercury
The mercury then is in a state of
black oxide the iron is various
There are two Unguents. The
first is equal parts of mercury &
lard — The milder contains
double the quantity of lard.
The ancients supposed mercury to
act by its specific gravity others
that it evoked the intestines &c.
But it is the living organized mass
that acts on the medicine and
not the medicine upon it
Some think that the particles
of mercury rub with the particles

of the syphilitic poison and chemically decompose them — In the same manner Arsenic acts probably in intermittent fevers — The Mercurial poison is undoubtedly a morbid animal Secretion. May articles act on the Secretions and why may not mercury act on this morbid Secretion —

Lecture Jan 25th

Modus operandi of Mercury continued

It has been found that mercury has been found in the fluids and that the serum and solids has been looked in for this purpose without any imaginable reason why it should be found in them rather than in other parts; but many of the older writers positively assert that they have seen mercury in the system. Mead says that he once found a small quantity in the perineum of a subject who had been salivated and upon investigation it was found that the man had been syphilitic

Boerhaave and others of equal authority have also asserted the fact: If we doubt this assertion

of these men because of the mea
negative testimony of our own
senses an author observes we
may bid adieu to all authority
in Medicine and Sleep only
upon our own wise theories -
and it is of no use to call up
the authorities of Hypocrates
Galen and others of ancient times
upon any medical subject what
ever. — It has been supposed
that mercury when used by
friction acts by being absorbed
into the lungs - but what
then is the necessity of a glass
to rub it in with and why
is not the person who rubs it
in as liable to be affected as
the person rubed. The action
is also too slow to lead us
to believe that this is the case.

Sidenote

Its use in fever is of a moderate
Dr Rush was censured for giving
it in large doses though Sydenham
and others recommend it in as
large a dose. We may ascribe to
Rush the introduction of it into
general use as a purgative in fevers

Chlorine it is true used it in large doses but his principal view was salivation - he says it was not adopted in yellow fever Physicians have enquired the propriety of its use in both of these views -

Salivation the Dr considers as of no more necessity to the cure of disease than as an indication of the action of mercury he allowed has been given to the extent of 2 or 3 pounds before it would salivate — The principal efficacy in yellow fever has been found by the very physicians who at first so violently opposed it

As a cathartic I believe here it is sometimes valuable but it is sometimes necessary to use it to salivation — The Dr has just mentioned that salivation is of no importance in diseases - & admits the propriety of it in bilious fevers -

In typhus fever it has not been much disputed

It is by no means an important remedy in the 4 authematic

It is sometimes necessary to use it as an alterative in local

inflammations how it acts I am
is not well known but it
could be ascribed only to its astri
bility and new action -

In Chronic opthalmia it is
often necessary also to rhemo
tum and medicin -

In dysentery Dr Cleathorious
it highly lauded it to produce
salivation & Dr Bond credits
as it the best remedy in this
disease but is not applicable
when the disease is of con-
tinued putrefy

Leighton Balfour & others
employed it as a chronic remedy
in this disease and Brunton
used it to salivation

In obstinate decubitus &
constipation it will often succeed
when any thing else has failed

Drs Cathcart & Cleathorious
says it is the best remedy in
Colica Pictonum and the
latter says liver and mercury an
tagonize each other - There is defi
ciency of spinor in using it some
use it as a cathartic others as
a Salivant —

In ala catarrh and other chronic affections of the lungs it is sometimes of very great use.

Of the time of getting by it the Dr has not the least idea—

It has occasionally saved a prolonged life in pulmonary consumption and shortened the days of others. In Cynanche tonsillaris it has been highly praised but it is only auxillary to the lancet and emetics Dr Archer, that recommended Cuprum sulphuricum ammoniatum in this disease. He employed 2 or 3 grains in an ounce of water and gave a tea spoonfull every 15 minutes until it operated

In hysteritis after deplation no medicine is of more importance Blisters & counter irritants are powerful aids in this disease

In Chronic hysteritis it is specially useful in all cases in which the functions of pregnancy is impaired

It is used in jaundice in obstructions of the bile but it is chiefly used as a purgative & alterative but when the bile is fully in the blood and the skin is

yellow it is used as a Solvent
In Syphilis and Syphilitic
rheumatism it is of great use
once - Some how through unknown
use Syphilitic rheumatism -

Lecture Jan 27th.

When Scurvy exists from two
causes it is curable but so
numerous are the causes of this
disease that some of them at
least may be in the reach of
medicine although producing in
the death many should not be
neglected — In tetanus and
hydrophobia its action is too
slow to produce much benefit
Mercury is not so well estab-
lished in its operations of the
nervous and muscular System
as in the vascular
Mercury is useful in dropsy in
hydrocephalus it is the only remedy
we possess of any efficacy in it —
It should be applied freely and until
the commencement of purging in the
latter stages as a Solvent
In tumors Caries & tetter &c
an ointment is useful as follows

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Corrosive Sublimate gr ¼
White Precipitate ℈i
Nitrate ℈i
M —

Either ointment and the nitrate of corrosive sublimate are used for the same purpose.

In spots of the eyelid mercury is sometimes useful

In Syphilis it is the only remedy we can depend upon notwithstanding the number of new articles recommended — The administration requires considerable attention

It sometimes produces salivation by the tongue the teeth loose and fall out the slough of the chancre and it is said that the lower jaw has been separated by the shedding but this is very rare occurrence — It has been said that mercury produces a new condition of the system sometimes but it is considered incorrect by many of the first standing — As the Dr has mentioned and it is useful to be in mind that one grain of some cases will salivate the patient

Amenorrhœa

The patient commenced to perspire about 4 o'clock and ceased at about 4 or 5 years of age. Some say they came from the vagina some from the uterus and some women say they have never menstruated

The discharge for the first year or two are very irregular but the blood is not interfered with the woman suffers much for Aberdeen has said as Nature he cannot through she will right the wrongs without interference.

The causes can have Response to be owing to local Authors the human Organism. The best thing is not to — The question is put to them when first discovered by Patients to come from the uterus but this was not so — Hyperæmia may the menstrual flow. organs may pass. Pain sometimes also simply says it is a discharge of red blood — You are never called to observe this discharge in both and it is not fair to draw conclusions from its appearance a state of disease — It does not come away all together but takes from 5 to 6 days by time.

It is impossible then to procure sufficient grants to investigate

the perspiration is possible
Cullen also says it is blood and
coagulates - It was considered as
poisonous by the ancients which
opinion extended extensively
prevailed - This opinion however
we now well know to have no
foundation [It was formerly sup-
posed that if a woman walked
round a corpse during the dis-
charge it would be very easy
to stop all the catamenial
discharge from [7
It was supposed with some of
the ancient writers that it is
a noxious fluid which
nature eliminates from the system
they say that they find insects
which do not menstruate
because they must go to
form the hair feathers & scales
of their animals

Lecture Jan 29 -

There should be no sleep under
the name of summer quiet
They are those medicines which
are given to promote the men-
strual discharge
There are two kinds of disease in
the female attention & suspension

It would be in vain to bring down the menses until the tone of the system has been restored by tonics — In the sporadic state of the menses are to be employed — If the symptoms of menstruation flow comes on every month notwithstanding discharge due at the same time the abdominal muscles are very subject to an imperfect system and should make an examination

In debilitating state of the system we use tonics and often in conjunction with cathartics — sometimes both tonics & —

The menorrhagia generally called commonly and indirectly — suppression of the menses is generally accompanied with fever Rush has called it the common state of fever — It frequently arises from cold &c. and we must remove the causes — Sometimes we cannot restore the discharge after it has ceased several years but this is unusual — Sometimes the medicines act as tonics. Sometimes emetics as stimulant and many all the medicines of the materia medica have been employed for this purpose — Most is a cathartic and acts upon the rectum & the neighbourhood of the uterus —

It is used alone or in combination with some Glycerite as a Collyrium for Cancer - but mostly Gold & myrh in Pills or the Glass Pill Cancer is sometimes used with alone with good effect

Melampodium

Petiolorum Nigra - Ebri is used mostly in this form of tincture it being highly prized - The dose is 30 drops to 3ii -

Most recommended in any Cancer it is an active cathartic & has been found useful - Collin thought it not good for much. But Barton. Physick Coleman & others found it Useful.

Rubia Tinctorum

Madder - Some supposed but Collin held it in the most contempt as a remedy of them at the present day.

It tinges the bones red and that but very little effect on the others

Agaricus and Smoke Stone in the same Indictment with madder Some favorite them but others say they are good for nothing but from the over powering authority of Smoke it should not be rashly with madder -

Decoction.

For a late communication high reputation Dr Stone of St. York introduced it into practice in this county —

It seems to have a specific action on the uterus at least on the gravid uterus — It is said to have produced various epidemic accidents particularly the dry gangrene and the sweating sickness of England during the early part of the last century —

It is said that the decoction of barley, oats and oats have the same effect as the same preparation

It is usually given in the dose of 2 ozs or 3ss infused in 3ij of water and 3 given every hour until it brings on perspiration —

Secale is a powerful medicine it has been used to procure abortion it can only be useful in cases of debility — It is given in the dose of to ℥ss ℥j three times a day or more often given ℥ss or ℥j at a time

Many other medicines have been adopted when properly employed Many under certain circumstances has proved of much service

When tonics are required none are better than the preparations of iron and I think none as better than the rust - It may be given in the dose of 5 or X grains 2 or 3 times a day or more combined with alcohol — Tonics the Injections of the cattle are employed the phosphate the muriatic the tincture and the sulphate

When that has been used — Injections are sometimes very useful of London or potash but then must be used with the caution and in small doses.

At a certain period from 45 to 50 years of age the menses cease but a many cases make about this time -

When headache and vertigo occurs we must resort to bleeding & low diet.

Lecture Jan 31st 1825.

The next class is the

Dermaphelgmasia

These include Cutaneous Rubefacients. They both stimulate the skin and produce evacuations from it - hence the Dr places them between two great classes of medicines the cathartics and the stimulants because they are sometimes used as both.

The class is divided into 4 orders

1 Rubifacients
2 Epispastics
3 Caustics or Cautions
4 Sutorious Pains

Rubefacients

These are the mildest of the class they may be produced by friction it counteracts the power of skin and thus great influence in the cure of quartan fever & in palsy friction alone is useful and best applications to the skin - It may also be produced by heat and the spacing of the flesh brush may be principally going to bed. Boiling water produces instant vesication on the skin it is employed when you cannot wait for the action of a blister & when it is wished to be excited suddenly - Hot brandy and other stimulants

are useful in typhus when we wish to rap up a warm bath in the stimulus

Cold feet however are not so dangerous as damp feet The Dr says he wears old pieces of boot cut to fit the shape of the sole of the foot with a kind of gusset to fit the toes to prevent it from slipping back

Sometimes the socks may be soaked with Cayenne pepper or mustard in case of cold feet and in some nervous affections when the feet are habitual cold.

Poddelevian is also very useful in some cases — In sore throat flannels round the neck alone or wet with some stimulant is useful — In conjunction application of stimulators after Hard work —

we now proceed to more powerful articles in the

Vol Alkali

which is often employed — The Aqua Ammonia is found by impregnating water with ammoniacal gas + Carbonate — The Alkalies may be often employed in the caustic state or carbonated state — They are often combined with oil forming soaps

Uses of Prodelose — is used in
cases of much pain in many old
cattle or bullocks

Acetic Acid

I obtain by distilling vinegar or
frying it — It is colorless when it
is made any strong it is a most
powerful irritant any of these
liniments may be rubbed in with
the finger or rag —

Spts of Turpentine.

is one of the most Spirit of the
whole it will penetrate the action
of a blister by long first Applied
It is very useful in chronic rheuma
tism — Notwithstanding its irritat
the Bovine skin yet it is one of the
most soothing Applications to bruis
We are indebted to Mr Hunter
for the knowledge of this important
fact. In applying it to bruises we
must be careful not to apply it to
the bones for it will become irrita
tion and pain would then be as bad
as the good effects. on the Bone but
Turpentine gives a violent blow to
the circ. Similar to this, are
the Spirituous oils but they are too
stimulating Camphorated Liniments
used often combined with Spts of Tur

turpentine It is dissolved in alcohol to constitute the liniment of camphor

Tartar Emetic

produces pustulation and a little pustules which will if not attended to will ulcerate and leave permanent scars -

Adhesive Plaster.

is a mild substitute which is owing to the oil of turpentine in its composition - Burgundy pitch is used but the substitute just mentioned is preferable

Dry Cupping -

may be resorted to in those instances where the patient employed cupping frequently when they are kept in for some time the Dr has known them to produce pustulation He has used them before and to facilitate the action of blisters.

Sinapisms or Cataplasms

are useful in many occasions

Made - The flour is first mixed with vinegar or salt - when made in this manner they by adding little powdered mustard forbid keeping

ginger & Mustard Red is the most prompt —

℞ Mustard Red one part to 3 parts of meal and ginger. Apply to the feet and it may in obstinate cases act so prompt as to produce syncope and when the patient does not appear sensible to the pain — they should be examined and if there is much inflammation should be removed to another part — The action of these ingredients are more sudden than blisters and the Dr thinks their action on the system are more prompt — I lay an admonition in small pox & the Dr says that mustard stimulates more than Cantharides

Lecture Feb 18th 1825.

Medications

When inflammation has been excited by a blister it is to be removed in Season cut the cuticle part and let out the fluid

Boiling water is one of the most expeditious means of exciting a blister —

The contractile suspends all
these all tunics act alike whether
Arterial or Capillary and what
the says of one will serve for them
all - The powers that pro-
duce these actions may long
time but they may be de-
bilitated by an indirect which feeds
upon them - Many other in-
fluences than vascular powers
Oppose them internally
by and externally and they can
all move to the Outward
But within the last century
they appear to have been used
improperly
They may be made to act as
subsequent stimulants or re-
actings - Their evocating pow-
er is undeniable but the good
effect is more justly attributed
the inflammation and pain for
the [redacted] evacuation
is so inconsiderable and the
relief obtained so sudden that
its evacuation would be an
inadequate cause - The ope-
ration pain is one part by producing
effusion in another

In fevers they are not used indiscriminately it is only after bleeding has been reduced that they are employed. but in some violent cases as in yellow fever we cannot wait and be tied down by this rule because the disease determinates to soon to employ general remedies we then use them at once in conjunction with other remedies

We ought not to make ourselves too small as they will give as much pain and not be efficacious

In fevers with local inflamation they should be applied near the part but in general fevers they may be applied any where.

One of the most unpleasant effects that blisters sometimes produces is strangury. In this case we may employ clysters drink to which we may add a little sweet Spts of nitre or lemon juice also anodyne injections

Many say the blood should be drawn 24 hours before a blister is

applied to it to prevent Strangury
but the Dr opinion does not
agree with this. Blistering is in
fact a species of local bleeding letting
blood they are useful in most lo-
cal inflammations rheumatism
cholera morbus diarrhoea dysen-
tery in nervous diseases & in-
flammation of the veins
In hydrocephalus & pneumo-
nia. — Scarification is very apt
to terminate in gangrene and
blisters are well calculated to
prevent this the inflammation
extending into the cavity of the
veins
They are useful in the long list
of nervous diseases -

In gangrene they are one of the
most powerful means in stopping
the progress of death they are first
used in this disease by Dr Physick

What has been said of the
Lytta vesicatoria will
apply to the Lytta vittata or Potato
fly — It is said that this is not
so liable to induce Strangury
~~———~~ The appearance of the
fly is different —

Formation of Cataplasms. The cataplasm is generally made into an ointment and afterwards spread on the cloth but generally an ointment is spread on leather and the skin then pressed with a spatula - This is a very slovenly way and should be discarded altho' the state of the Urg. Medicine might with caute previously the part should be bathed with vinegar, brandy &c - The Dr says when he does wished to facilitate the action he has applied a poultice and - They operate much more speedily on the tender Skin of infants than adults - In the latter they are generally kept directed to be left on 12 hours - or until vesication is produced and when this occurs a clean dressing will do.

In dressing, make two or three slits in the most dependent part to let out the fluid, and then without taking off the cuticle or washing the part cover it with caute. They should be dressed perhaps about once a day - may spread the edges with adhesive plaster that least it may keep. The part should be such as will adapt itself to the shape of the part -

Lecture Feb 3rd —

3 Orders. Caustics & Escharotics.

The actual cautery was much used among the ancients and is even now sometimes employed to stop bleeding in the back part of the mouth fauces when the vessels cannot be reached

They are also used in the French Hospital — The Dr says that the pith of Sun flower may be used it is one of the most inflammable substances in the vegetable kingdom

The Chinese use fire by moxa. They are mostly used in Chronic Cases of rheumatism and gout it is questionable whether the moxa or actual cautery is best neither of them are to be employed over tendons or other important parts when seated near the skin

Common Caustic

This is made by taking the carbonate of potash and pouring it on caustic lime — Soda may be used — It is sometimes moulded

Lunar Caustic

The dose is 1/6 grain gradually augmented sometimes to 2 or 3 grains at a dose and even from 10 to 15 grains in dipsosis hydrophobia —

The human constitution does not appear like the Constitution of Potosi — The Nitrate of Silver may be made to act more powerfully by dissolving a Silver coin into nitric acid.

The muriatic acid will have been used the Sulphuric muriatic & the Nitric

Corrosive Sublimate

This destroys fetor and putrescent animal flesh — It has been in vogue but now not so much The Sulphat of Copper Antimonial acid. Alum. undigested — Lime all been used.

Citrine Ointment.

An ointment of the nitrate of mercury made in sedgwood or in a glass mortar — The nitrate of mercury when in solution add 12 parts of hogs lard — & put it in for a brilliant yellow color — the colour for a few days. it be comes of a dirty flesh colour by the heat of the nitric acid acting on the animal matter — Some say it is an excellent application in chronic inflammation of the eye

196 Savin ointment has been used in the wounded beans -

Setons or Issues -

These are substances introduced by a seton needle - the skin as silk &c - — they promote a discharge - and there are useful when we wish to heal up an ulcer that has been running by substituting a different action -

Incidentia

The Dr divides this class into 2 orders Stimulantia & Roborantia - These into Genera. The Stimulantia - into Stimulants proper. Antispasmodics and Narcotics — The Roborantia into Tonics and Astringents -

Stimulus Proper -

These action is evanescent and the great desire is then use is to employ them in such a manner to keep up a constant effect - It is difficult to fix the exact point in any disease in which the use of stimulants are proper —

We should adapt the remedy to the circumstances of the system but much will depend on the judgment of the practitioner

Alcohol - is the basis of most stimulants not in its alcoholic state but in wine brandy &c -

Alcohol consists of oxygen hydrogen and carbon - when it is largely taken by one that is not accustomed to it is a poison of an active or chronic nature - Spirituous liquors is the cause of death either directly or indirectly to more than half of the human race

Symptoms of drunkenness - of the first there is an excitement of the mind, joy) & my talkative The second degree is laughter singing songs. foaming at the mouth profound sleep and perspiring freely -

3 degree. the countenance is livid breathing stertorous (dead drunk) death -

Alcohol will kill more quickly when injected into the cellular texture than when taken into the mouth but is much more active when injected into the jugular vein Alcohol inflames the stomach

Opium does not Cheer it is concluded from this and other circumstances that there is no analogy between them —

Mr Brodie supposes the action of alcohol on the brain with consumption of that organ. the effects of alcohol are ordinal and stimulating without any narcotic power

Alcohol forms a useful solvent for many pharmaceutic articles It is composed of Carbon 43. Oxygen 37½ 31/- of nitrogen and 19% hydrogen -

It is colorless and transparent smell & taste fragrant S. grav 845. but it has been brought down to 800 - It has never been frozen - When mixed with an equal quantity of water it constitutes the proof Spirits its specific grav is about 900 and this is the form in which it is usually given

Brandy contains about 50 per cent of alcohol -

In Typhus fever we may

Ethers give very large quantities of it and its administration is to be regulated by symptoms. Very often given in the form of ether whisky - is formed when alcohol by boiling ½ pint of milk and half a pint of water together and then added gill of white wine. separated from the curd. The last wine is just as the medicine -

(1)

Ether is formed by distilling alcohol and sulphuric acid together it is called

Sulphuric Ether -

Then as the spirit of ether is one the acid does not enter into the composition but only serves as a proper of the elements of water in the ether the acid forms a component part. Sulphuric Ether is the anesthetic employed in medicine take first. Smells odorous and pungent - It is colorless at 60° Fahr. It burns very readily - Ether consists of one part of the vapour of water and one of carbon. Since it is only necessary to use that one of the parts of the

vapour of alcohol to pour ether.

It is useful in a number of nervous and other affections

It is also a sanctum in inhalation also as an application externally to muscular pains. burns

It can wish to produce a rubifacient effect we confine it but it evaporates rapidly it produces much cold

To purify it is subjected to a second distillation with the addition of sulphuric acid - The dose is from 30 drops to a tea spoon full taken in water.

It is a powerful stimulant and produces its effects more speedily than alcohol.

Lecture Feb 7th -

Many essential oils are sometimes used as stimulants.

Capsicum Annuum

Cayenne pepper. if they possess no active principle powers or narcotic they are one of the best species of stimulus - used in powder a tea one grain to a pint of alcohol the dose is a table spoon full - they are used also as a rubefacient

Cinnamon. Cloves. Nutmegs
&c. have been used as stimulants

Phosphorus —

This is generally used in the form of
ethereal solution — It acts as a
poison — It has been recommended
in colic and other spasmodic diseases. Fumes as the malignant
bilious fevers — It has been used
in mania & melancholy — The
dose is gr. i 24 hours this will
be sufficient for to effect. The
form of its exhibition is in combination
with oil of rose mixed with hot
water — This article has received
much praise from its stimulant
action in gout and tetanus

It is oily — burns and powerfully
flashes when put into substances pass
easily under water and by slow
combustion phosphorous acid is
given off — by quick combustion
phosphoric acid —

Phosphorus is dissolved in the oils
ether and the alkalies

It is the combustion of phospho-
rous that gives poisonous nature
phosphoric or phosphorous acids
are required only in a
state of combustion ——

Cupbila says when this substance is taken into the stomach it combines with a caseiving inflammation and that this inflammation is caused by the action of phosphorus in a phosphorous acid which is liberated by slow combustion The Dr is disposed to conceive that inflammation arises the moment combustion takes place and is caused by it If gen is the combustion takes place very rapidly & much less acid is formed Antidote. Large draughts of a mixture of the carbonate of magnesia is perhaps the best remedy to saturate the phosphorous acid

The administration against the practice contra is it may produce violent inflammation of the stomach & bowels & death

more than 2 grs should not be given in 24 hours and one will generally be enough — It may be given rubbed up with crumb of bread but if this happens it is apt to take fire and become phosphorous acid — It has been proposed by

form to melt it in warm water but this is no better.

Hufeland recommends it to be given rubbed up in emulsion with Hoffmans anodyne but perhaps with some one of the last and softer solutions. It dissolves in Gastric oils it will require too much of them to give a sufficient quantity of the phosphorus and an ounce of oil will dissolve viij grains if 3ij or more are given the dose should be only drops.

Carb. of Ammonia

Vol. Alkali - chemically characterized it is the Sub. carbonate. It consists of hydrogen & nitrogen gases. Stimulating and caustic smell pungent. In its pure state it is in the proportion of gas & water saturated with the gas of ammonia in the water of ammonia & the officinal which is highly caustic and stimulant. The carbonate is a white salt easily soluble in water forming the aqua carbonas of ammonia

Almost all acids act on it, the mineral drive off the carbonic acid and form other salts with it

Chemical antagonist ought to be sought
after daily - It forms the basis of
Mixture which is Chemical
It is probably it is the gas only
- the carbonate that is active
and all the Camphor of the sub
carbonate is from its undecomposed
ammonia because the carbonic
acid is easily driven off by any
acid in the stomach then the
aqua ammonia is just as
good. It may be given in
doses of 3 to 6 or 8 grains as oc-
casion may require
It has been given in some cases
of phlegmatia without previous
expectation It has been given in
pneumonia - It may form
the basis of mixture in the
stomach and purge or act as a
diuretic - or as an expectorant
as for in acute rheumatism or
if gout is acting in the stomach
ammonia may prove useful
by purging If any effects in mutte
saturated thus
It is much better in typhoid
pneumonia - It is used in
hooping cough asthma and in

some of the actions of the alimentary canal — In the clap of mannow it has been employed but the Dr supposes it not to deserve much Confidence.

In mania when it proceeds from drink it is useful and it is said if a man is drunk he will be relieved immediately by the Carb of ammonia

Fontana found it useful ~~from~~ in poisons of animals It has been said that the poison of animals and insects is acid therefore we can easily conceive how the carbonate of ammonia may operate by neutralization

All acids decompose it to acid ~~alone~~ drinks are improper during its use —

All tinctures may be considered as stimulants —

Lecture Feb 8 —

Antispasmodics —

These act on my nervous

Camphor —

Camphor is formed into cakes which are round or broken —

It is a vegetable substance and is never considered as a direct vegetable ~~substance~~ principal it was called but it is not Camphor has been found in two Species of Laurus. the one which contains the most quantity is the Laurus Camphora — when it abounds in the East — Some formerly entitled it as a resinous substance some a gum others as an essential oil — It is refined by sublimation the Sp. grav. is 98 a 99 to 100 when sublimed it forms crystals insoluble in water but they are soluble in alcohol and precipitated by water soluble in oils & in acids without Effervescence It is volatile aromatic and stimulating — with nitric acid it affords camphoric acid the solution divides into two portions the lighter floats on the top and is called the oil of camphor — sulphuric and nitric acids dissolve it and is precipitated by water or alkalies — water impregnated with carbonic acid gas deposits it

It unites nausea and vomiting through the imputation a crystalline ~~substance~~ is found in the gourd tribe which has the properties of Camphor Called Artificial Camphor - Camphor has been introduced under the name of gum Camphor but it is a disgrace to any man to decide it under this appellation as it is not soluble in water -

Water dissolves a alcohol it is the duty of Camphor -

Camphor in doses may destroy a person when taken into stomach of dogs. in doses of 3i to 3ij and 3ij produces the same effects but 3 drams when injected into the cellular substance & 3iss more rapid when injected into the veins Camphor is not digested but produces nausea & the intestines

Cullen says that artificial Camphor is not so powerful but the dose is only produces a few drops alcohol the D. is inclined to doubt this Camphor was formerly considered as an antiaphrodisiac and was given in typhus fever when the

doctrine of putrescence was in full vogue. She does think that certain morbid states of the blood do exist though she does not believe in putrescence. — The blood is the only part of the body which we can do without — Children have been born without blood. Stimulants in cases almost any part but this. Lemuel Cook dissection woman 45 years of age in whom there was no stomach nor even the duodenum had hardly the usual digestive apparatus

Complexion is entirely useful in low debilitated state of the system especially when combined with opium and other stimulants.

It has been recommended in puerperal fever but cannot be useful in this case it is a repugnant and reducing agent

It was once used in some of the phlegmasiae but it is now known to act as a stimulant & is of course improper

The dose of camphor is from gr ij to 3i It may be given in pill or rubbed up into an emul

emulsion this is an excellent way
with persons it but does not
dispose it — as an antidote of
putrefaction it may be dissolved in
the state of turpentine as an emu
bication In conjunction with
soap and water it
forms the dissolution —

Lecture Feb 10 —

Musk

Moschus Moschifera — is an
animal production from the bea
ver a substance lodged in the
follicles of the beaver near the
anus. It is grain of a reddish
brown color and it strong smell
introduced into practice &
by the Dr ancients it is no
more efficacious than any the
animal substances It is said
to allay pain with the pulse with
out heating much and relieve
affections of a spasmodic nat
ure — As with Storck what has
been said of it use it by physi
cians and so other declared it
would have but little effect without

other remedies — when mixed it gives it is generally combined with some powerful remedy as Opium Vol Alkalis —

Cullen praises it highly and says it is useful in moments gout. It may be given in doses of grains 5 to 30. Either in pills emulsion or tincture the dose of the tincture is ℥ss to ℥i — usually taking ℥ss of mixt to a pint of alcohol — now if we give an ounce of this we give an ounce of alcohol and 60 grains of the resin —

If it gives is must just

Castor is almost out of practice and soon will be quite — if we retain this we might as well purge an antispasmodic from the polecat —

Oil of Amber — would be better if it was not for its disagreeable properties. It is not more efficacious than other stimulating oils. It is used as an embrocation but it is no better than the oil of turpentine — Then used in hysteria colic and gout in the dose of 5 to 10 drops —

Drop on oil of amber upon
a small quantity of nitric acid
a substance rises to the top which
is the artificial musk
which is as good or better than
the other the dose is the same.

Tincture of Asafoetida

Asafoetida is a gummy resinous sub-
stance composed of volatile and
fixt but the best solvent is alcohol
Acts as an emmenagogue expec-
torant &c It is valuable in asthma
and chronic cases in hooping cough
It is highly praised as an antis-
pasmodic and may be given a
few days after an attack bleeding
&c being premised if necessary
It is used in some cases of the bowels
and it is said to act in these cases
as a tonic and laxative. but
in a better way it is given combined
with aloes given in pills in doses
from x to xl & is usually so ad-
ministered the dose is table spoon
full — It may be given in solution
in glysters for distroying ascarides
the tincture is the best prepara-
tion in the dose specified

Gum Ammoniac is sometimes used as a stimu-

Valerian. The Root —
This is not a native of America
but we have several species
Valerian officinalis comes
nothing from Europe when it
grows wild — It yields its active
parts to water and alcohol
It is used in epilepsy — The Dr
does not consider it a med-
icine of much importance
Cats are delighted and mad
with it The dose is from ij gr to x

Crotis Sativa or Saffron
Has been highly spoken of as
an antispasmodic especially
in the recumbent to bring out
the eruption of pus — It is
but little employed.

Garlic. has found it way
among the antispasmodics

All of the Essential oils are
stimulating and antispasmodic

The Warm Bath is in all prob-
ability the best antispasmodic

Narcotics –

The word is derived from the greek signifying to make torpid – as pain is the consequence of nervous excitation a sedative communicating with the sentorium. and any thing which destroys this communication relieves the pain and is of course analgic. with this view many of the usual remedies are employed as the best opium and other remedies which relieve by blunting the sensibility of the sensorium – but as for the mode of action it is useless to spend time as no satisfactory explanation has ever been given

Narcotic is when given in small doses the pulse is increased and the mind invigorated which soon ceases but if long used the mind becomes stupified inactive & sleep soon follows – the longer used still the same. convulsions and death. The most important of the class is

Opium The

Magnum Dei Donum

It is the inspissated juice of the heads of the Papaver Somniferi or the white poppy & some from the whitings of its seeds Papaver Album – It is principally imported from the East

and might be cultivated in this
county — It was formerly principally
prepared at Tobacco when at the name
of the time of the trial — It is by some
considered as a nervine sometimes

Lecture Feb 11th —

Opium is of a reddish brown color
smell narcotic taste bitter acrid
and hot & pungent & nauseous in
some cases the head & bottle is
cool. — Partly soluble in water &
more so in alcohol & still more in
acetic acid forming laudanum. black
drop &c — The active principal is
an alcaline or by the French morphia
It has been attempted to counterfeit
it by various methods
Laudanum consists of acid must in
a short time attempts originally from
opium and potass should be formed
by giving the last portion of a bottle of
laudanum — The analyses of laudan-
um is a crystalin substance extra-
tive matter resin. oil. & meconic
Mr Jones did extract the process of
separating morphia from opium & found
the crystaline substance alone to be
morphia combined with an acid
morphia is colorless when pure
deposits spongy is hardly water but
easily in alcohol & ether and acts as
an alkali on vegetable colors —

If castor oil is very vigorous vomiting should not be taken in case of poison by it — Lime by the stomach as proposed if an emetic from bark this is without any foundation as they contain an oily matter.

Opium does not inflame the stomach according to Orfila it differs in this from alcoholic poisons — The rectum is found to be more sensible to the action of opium than the stomach itself — this should be remembered it is laid down as a general rule to give three times as much by the rectum as by the mouth. Opium should be carried in clysters from by the anus. Galen mentions a person who was killed by 4 grains administered by the rectum & there are many other cases of the same kind. The application of it to the skin will sometimes cause narcotism but this is not a general fact.

It has been much disputed whether it should be ranked among the narcotics or stimulants.

Its effects on the nervous system is somewhat analogous to alcohol.

It is used by the Turks with a view of stimulant. — Whatever may be its ultimate effect it primarily is undoubtedly in the highest degree stimulant this is now the general opinion

and the disputes between Brown and Cullen are of very little importance.

General symptoms produced by opium and the other narcotics stupor: numbness: drowsiness of the head disposition to sleep: vertigo delirium: convulsions: paralysis of the supinor extremities: vomiting: nausea and vomiting: increase of the nervous functions and motion.

On dissection we find the alimentary canal: meatus: the lungs: often present morbid appearances of the brain and its appendages are found injected with blood: and sometimes effusions

Antidotes — vinegar and the vegetable acids The experiments of Tanner to prove that vinegar is an impropper article to begin and the experiments of Orfila shows that opium dissolved in vinegar acts much more speedily & violently than alone vinegar also produces inflammation of the stomach but two days after the opium has been vomited up vinegar will relieve the symptoms induced by opium

2 Strong decoction of an ounce of coffee this according to some authors does not increase the effect

Opium but that it is not effective
ol is entire

3 - Chlorine he equally disapproves of because chloric is itself a poison

4 - Camphor he says this will not act as an antiseptic and often produces bad effects itself

5 - Mercalgenus diaphoretic. these are good for nothing

6 He approves and recommends blood to be drawn from the jugular veins in this the Dr compares with him as a ligature on the neck thus abolishes at once because it prevents a passage of blood from the brain

Then the first thing which is to be done is to clean out the stomach by vomiting & washing it out with a tube - Sickly the fauces to bring on vomiting with a feather it may be dipped in oil and thrust down the throat while an emetic is preparing — Emetics should be of the most active kind as Tart Emetic gss x to xv or Sulph Zinc 3i or Sulp Copper gss x after the stomach has been evacuated pour the treatment on may give the vegetable acids

Dr Phillips concludes that most

of the antidotes mentioned by
Authors are not so - The only
means when the Spirit is in the
Stomach is to prevent it out-
mediation is known any useful

Lecture 7th Feb 12th -

When Spirit is taken into the
Stomach is done of one grain the
pulse is rapidly effected without
much increasing it for a few minutes
when more has been taken the
effect is greater but after an hour
it is up it is increased but never
prevents standard and attended
with nausea and headache &c.
The patients mind is much excited
but this rarely last long in fact
then that its first effect is to
stimulate -
Dr Coyne suggests that stimulants
in spirit itself to be given in order
to keep up the excitement instead of
depleting the patient
Opium by long use loses its effects
it is said that Dr Monges gave
2 pints of laudanum a day - The systems
of these Spirit takers as is common
drunkards are much impaired
and the unhappy victims are
subjected to violent diseases from
trifling causes as anemia a pain
in particular

sometimes large portions of the stimuli may be taken away by substituting for it some other stimulants as Laudanum &c — —

As a medicine Opium is above all praise —

1st Relieves pain and in many sometimes where the danger proceeds by acting pain with boiling water, Clysters, and pultices are applied

2nd It is used to keep up excitement

3rd To procure sleep

4th To allay spasms

5th To check discharges & when morbid action —

One of the most useful properties of opium is procuring sleep — but it must be given in a proper state of the system or it will produce watchfulness — Brown took it to keep him awake — It is much used in fevers when also it must be employed with judgment and no particular time can be laid down for its administration — Collen & Cyc the proper time is when the disease has lasted for some time & when some debility comes on Hartman is said to use Opium

specifically on the brain and spinal cord
is used in many of its affections
In typhus fever it is of much use
to keep up a stimulus the patient
should seldom be washed from day
to day as the dew. Determines
in typhus opposite states of the system
in one opium is useful —
Opium has been much used in
intermittents both before and during
the cold stage. Lind proposes it
even after the commencement of
the hot stage Dr Chapman
speaks highly of it in this stage
but his conclusion may be disputed
& when the Dr does not think
well of it in the hot stage.
Some practitioners give it combined
with Peruvian bark during the cold
stage — When Diarrhoea occurs in
the course of a typhus opium and
chalk is useful to stop it
In yellow fever it has been
given with Calomel
In the various cases of phlegmasia
dolens we must be cautious of its
use until the action of the vessels
are subdued by antiphlogistics
In cases where there is violent
pain opium must be given in
much larger doses than in health
or it produces no effect —

Its action is different in many different ways from what it does in health - some have found that opium was not proper when mercury was required but there are many exceptions to this rule -

There is no general rule in which we can regulate its use - when inflammations or pain come on after inflammation opium is useful But you if you if given may do more than good in pain.

In one of those cases of inflammation when depletion is pretty urgently required and while this is necessary opium is to be given with much caution but after the circulation is reduced it is useful -

In typhus phrenzy it is given with advantage

In catarrh it is useful given in the form of brown mixture. Also some may be used of influenza -

In hooping cough it is not generally given until the inflammatory stage is passed but we are too much afraid of it they do not give enough during the day and opium at night with good effect -

In consumption it is sometimes useful

If it produces disagreeable effects as dreams and harassing it is injurious. In chronic rheumatism it is used but even there it is to be used with caution

Digestion when it is given during inflammation it is hurtful This is clearly illustrated by the unfortunate fate of the celebrated Brown - It may occasion it to pass from the alimentary to an internal part or to some vital organ It is in active exhaustion that it and other stimulants are most proper but even there bleeding is sometimes required

Opium agrees to those of plethoric habit It acts on the brain hence narcotics are not used in diseases of the head as in phrenitis in mania and other diseases

Palpitations of the heart depend on an affection of the stomach hence pay attention to the digestive system - Opium has been employed in dyspepsia but it is too much used in this complaint

Opium has been employed in hydrophobia it has no anti syphilitic powers

In chincough it has been used and particularly in Germany but in this country the Dr has been taught to be forbidden -

It has been used in the southern states but it was in the latter stages especially in muscles that it was much useful.

Colic is sometimes spasmodic attended with pain on the abdomen just pain and in these cases it is useful it often acts as a purge when the bowels are distended — Doubtful —

It has been employed in chronic rheumatism but it does not often succeed — it has been given to the amount of 30 or 40 grains a day without much effect in chronic and obstinate cases of this latter disease some practitioners chiefly rely upon it — but in tetanus from injuries the Dr has found that most of the cases treated upon the stimulating plan seldom have fatal — The Dr believes it may check the disease at its outset, but fail in stopping it progress when fully confirmed, but when we find that the patient is likely to die and the disease is not check we should stop the Dr resort to evacuants. This is a disease of high excitement but the excitement is seated in the muscles if it was in the vessels then who oppose it the most

would be the warmest advocates of blood letting but the Dr says he is yet to learn that muscular excitement does not call for the same as well as actual excitement —

In hydrophobia the same remark will apply as to those of tetanus — It is employed in almost disease that demands the notice of the Surgeon and the accoucheur —

It is employed in substance in pill in grain doses. it produces a more permanent impression than its equivalent of laudanum which makes it quicker and more powerful the constant The pills may be made by rolling it up if soft. if hard it may be moistened with laudanum — It may be found advantageous pills with camphor & roots

Laudanum is made by digesting an ℥i of opium in a pint of dilluted alcohol — Brandy may be used but dilluted alcohol is the best — an ounce of laudanum contains about 2½ grains of opium if this was to hold this but we should have 66 8 grains but we find that an ounce of opium contains 68 grains. there fore there 32 grains lost —

Paracelsus puts down the name of laudanum — a description follows — the laudanum here the first preparation in the strength in this account some which should be used that would prevent a deposite — Then is 3/- grains of opium in one drachm or 60 gutts of the laudanum.

The Dr once thought that wine was a good menstruum. but it became mouldy from the sugar it contained — It is much stronger than laudanum about three times stronger —

Doses of laudanum.

To adults	gtt	20. 30 or 40
15	"	10. 15. 20
10	"	5. 10
5	"	2. 5
A little	"	1. 2
	"	½ to 1/-

All these will vary very much

Another preparation is the Tinct of opii Camphorata. Pharmacopeia or The American pharmacopeia has attended the name very foolishly It consists of opium. camphor flowers of benzoin. anisated oil & dilute alcohol — It contains 2 grains of opium to the ounce Hence it would be 16 times weaker than laudanum but the other articles it contains increases somewhat

its strength — It is useless as-
ticle because we can always pro-
cure laudanum to the same
strength — The dose is from two to three drops
only — The Dr says but little
of this wine is sent as it is
no better than laudanum
It would be of use to a pint
of white wine. The dose is the
same as laudanum —

Opium is usually applied but
considerable effect to the system
used to abate local pains It is
applied by spreading the powder
upon the plaster or sprinkling
it on the part —

Laudanum may be applied as a
liniment as the liniment de
opio or anodyne liniment

Rectoral Liquor et Liquorice
and laudanum boiled down into
a paste &c —

What the Dr has said of the
properties will apply thereunto
to that obtained from the com-
mon garden lettuce —

Section Feb 16th 1825.

Hyoscyamus Niger

Henbane. Native of England.
root fibrous and woody and compact
and of a white color.
Flowers of a dirty yellow — both the
root and flowers are narcotic a-

nicotin poison they produce
dangerous and fatal symptoms
as mania and tetanus delirium
The eyes were affected in one case in
every thing appeared to the patient of
a deep red colour for several days
From the experiments of Orfila
it seems that the juice and decoction
of the root when in full vegetation produces very diminished effects
but much less so when gathered
in the spring. The same may be
said of the decoction and extract
of the leaves Stoerk published
many cases in which the use of
this remedy was attended with
beneficial consequences
Collin says he seldom discovered
its anodyne effects until he had
used 8 or 10 grains of the extract
and sometimes more - It is useful to dilate the pupil just before operating for the cataract - The
extract is not a good preparation

Atropa Belladonna
Deadly Night Shade -

It is a poisonous narcotic poison. according to Haller 30 to
40 grains may be taken with impunity but if more are taken violent retchings & pain & convulsions
and even delirium coma & death

The pupil is dilated. It causes a troublesome dryness of the mouth and throat nausea &c — The same symptoms occur when injected into the veins and cellular membrane.

Aphilo mode may experiment upon it and says it is a violent poison

It dilates the pupil as the Stramonium &c —

The dose is to gr. —

Conium Maculatum
Hemlock —

This is known by its shining and spotted stalks &c —

Various accounts have been given us by various authors and the Dr says we must read with great caution all these exaggerated accounts of medicine —

Hallen says it produces prostration of strength loss of sensation nausea. convulsions & death.

The watery extract is obtained from the fresh leaves and contains nearly all the virtues of the plant according to Aphilo but boiling destroys its virtues nearly if the extracts have no a little nature from the cellular manner in which they are prepared

They are commended into the system

and act violently on the nerves
from the worm stage in which
it is found in the shops you should
commence its employment in
very small doses and it would
be best to use the powdered leaves
They should be dried in the shade
and be often turned & kept in drawers
excluded from the light to pre-
serve its fine color -

The dose of the powdered leaves
is from 20 to 30 grains 2 or 3 times
a day)

This medicine has undoubt-
edly been found useful in worm
diseases it has been used in
chronic rheumatism in flow debi-
lities &c -

Cullen used it in cancer to
relieve the pain and to render
the discharge more healthy and it
seem had effects enough -

Some of our old physicians
used it in scrofula - Dr Rhees
was one who employed it - the
Dr - thinks it has been discarded
a scirrhous tumour

It is combined with rhubarb &
ammonia — Dr C Chapman says
he has used it with success in
jaundice and amenorrhea - & the
Dr concludes that it would not

in any ~~form~~ loss if plunged from the matrix under it
It has been combined with opium & bark and some powerful articles are begin with a small dose and increase it until nausea or vertigo is produced -

~~Datura Stramonium~~
Stramonium. Thorn Apple. Jamestown weed. Stinking weed

All parts of the plant is poisonous The seeds are most frequently the part used - They produce wonderful vertigo delirium pupil contracted convulsions & death -
The symptoms and effects according to Orfila are similar to those produced by belladonna as pupil you a kind of mania - The antidotes are the same as those recommended under opium
The seeds are the most active part and the most common to use - The extract has been given to the extent of 8 or 10 grains a day two or three times but the strength is very various
It has been much used in epilepsy & it is said by an author that it is as efficacious as bark in intermittents he gave it in the following proportion

R Pulv Semmo ℥i
Flour ℥ß
Ext tot pills x –

It is said also to be very useful in mania. used in boluses and many other diseases but without much benefit – It is apt to produce nausea and vomiting.

It is used to dilate the pupil The tincture of the seeds is a good preparation it should be taken into. Dose gutt x

An ointment is made by boiling the leaves in lard which is said to be very useful in bruises & colds – Stramonii does not appear to act on the bowels & pancreas –

Medic –

The Dr ranks this in the catalogue of narcotics. and says it will just come to sleep – Mucus lard chosen to soothe the soul –

Tela Aranearum

Spider's Web –

How the Dr came to mention this as a narcotic it is difficult to decide as it was introduced into practice for the cure of intermittents &c. like a thousand other things very absurd –

Lecture. Feb 15th.

Tonics —

Almost any article of the materia medica may occasionally exert a tonic effect but as a tonic one the most prompt tonics if long continued may act to induce debility — Thus a stimulus is a tonic — Tonics are those medicines which give rise to counteract debility. they exert a decided influence on the whole system. they increase the power of the absorbents this is one of their most striking properties

Cullen classed these medicines under the name of Roborantia — They improve the nature of the chyle and also increase the secretory powers — they effects combined to produce increased strength & firmness of fibre —

Their effects have been ascribed to their bitterness by Cullen but this is a mere speculation as many prompt tonics are not bitter & those are not accompanied which gives rise to their effects & tonics — when the stomach is loaded we must first evacuate its contents with emetics & cathartics. and this is often the very first part of a tonic course

They are not indicated
1st When bile is present they will occasion spasms & pain in the stomach
2nd When the pulse is full hard and vibrating
3rd When there is a dry hot skin and a burning heat
4th. They are improper when there is a difficulty of breathing with tightness of the chest -
5th Fulness and tension of the fore indicating apoplexy

Peruvian Bark

This tree grows in Peru and other parts of South America - It is known under different names as Jesuits Bark. Peruvian Bark. Jesuits Bark - The bark was discovered to be useful in intermittent fevers by a countess being cured by it -
There are 3 kinds kept in the shops. The Pale Cinchona. Lancifolia the oblongifolia & Cordifolia -
Cinchona Lancifolia Pale
Of this there are 2 varieties the quill bark & the flat bark. principally used in Europe - The quilled consists of quills pieces. annulati the other differs in being rather larger.

Cinchona Cordifolia Yellow
This comes in layers knots when the
bowes breaks with a shiney
fracture and its powder is paler
than that of the bowes - & it is
more astringent to the taste

Cinchona Oblongifolia Red
This is much larger but it is not
rolled up like the quilled bark
The bark consists of 3 layers breaks
with a shiney fracture & colour
It appears that the red bark has
the same effects as the others
but is a much greater degree
Its high price soon led to its adulte-
ration and has almost excluded
it from this country
Analysis has given a very contra-
dictory accounts - It is said to be
a specific in intermittent fevers
and is given as early as possible
by some after the paroxysm with-
out any previous evacuations
Emetics have been recommended
to throw out the miasmata from
the stomach and sometimes to em-
ploy acids at once. just before
the expected paroxysm - Dr
Cathcart says the miasmata
is composed of oxygen - If this
is correct it will appear that
miasmata exists from a tonic
as well as internal causes -

It is a question time for this remedy is admissible in cases of visceral obstructions - The bark is considered injudicious in these cases. The Dr enumerates how a more useful article to secure to the academic this is admissible in all those cases - In the mucous of the pharynx it lays heavy on the stomach and is useless but as soon as the fever declines and the stomach will bear it it should be given - The unfavourable symptoms induced by it are headache thirst. fever & heat of the skin when it does not sustain a natural circulation &c -

In the different barks two different principals are found - the pale yellow cinchonine. the yellow quinine and the red both of them tell us but Dr Coxe believes they are both the same and gives them as some diversity of opinion arising from the different kinds of bark - The sulphate of quinine is the union of this principal with the Sulphuric acid.

The bark is used in powder in doses of a ℈i several times a day when this is disagreeable it may be

used in Cold infusion but this is liable to become mouldy by keeping - It is sometimes used in urine

The Decoction is not so good as the cold infusion prepared by pouring a pint of boiling water on an ounce of barks and let it cool stirring it for some time and then strain — with a few drops of Vitriolic Ether. or Jour the Sulphate of quinine extemporaneously and we have the benefits from this expensive preparation.

The Extract is made by boiling the bark and then evaporating the Solution

There are 2 kinds of Tincture the simple & Ammoniated. they may sometimes added to the watery infusion

It is sometimes applied externally to the bark jacket & intermittents in children & delicate females —

when it purges we unite it with opium. when it constipates use Cold and a stimulant.

The Sulphate of quinine has been adulterated with Starch & lime which is employed in its preparation. — The one is good if boiled it shuts when quinine to the extent of 10

Lecture Feb 16th —

Gentian Lutea

This Plant grows in Europe but it might be cultivated in this country

There is nothing remarkable but is perforated with many small holes made by an insect and the leaves appear as if they were as bitter as the root

It is chiefly employed as a stomachic bitters to excite an appetite but this is more from the alcohol it contains in the tincture it is too stimulating & may in time create a habit for spirituous liquors

It appears to be in common with all other bitters that they are antiseptic. It has also been used as an emmenagogue. — It is one of our native plants as well as bitters tonic. wine of gentian

It has been used in dyspepsia & gout. Cullen says it is a very useful in intermittents combined with galls —

Centaury There are two species. Chironia Centaurium

Angulosa

There are very few bitters — In the angulosa the bitterness is found

equally in the flowers and all
the parts in this respect it
differs from the other —
What has been said of the
genus in will answer for this.

Quassia

2 kinds. Quassia Simaroubea
& Excelsa.

The latter is principally used
and is my subject.

It was discovered by a black
Indian negro who first used
it in returning that favor on him-
self & cure the cargo. & it
was named after him Quassia.

It is a small and excellent bitter
tonic & It is principle is extract Quassiin —

Colombo —

Where is not known it is said
to grow in Africa it was found
supposed to come from the E. Indies
It grows but it returns to wate
It is principle is very bowels com-
plaints and may be given in all
diseases in which tonics are
employed Dose grains j to ℈ß

In infusion a table spoonful
to a wine glass full — Tinct is inferior

American Gentian.
Aristolochia Serpentaria
Virginia Snake Root

The root consists of many fibres
of an pleasant taste bitter. It
does not affect the salts of iron
gelatine &c — Its tincture is
given daily to be diaphoretic
but adjuncts must be given
with it for this purpose. It
has been much used with the
hemicrania but and it is an useful
Lime & ay it posses astringency
and stimulating properties
It has been used largely in the
phlegmonous Yellow fever & in malig-
nant intermittents — In pneumonia
after depletion it is useful & in
dropsy but the Dr doubts this
very much.
It is an aromatic tonic and
may be given when the pulse
is low — The dose is ℈i to ℈i
with bark ℈i

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Lecture Feb 19th —

Mineral Tonics —

The principal medals used as tonics are Iron. Arsenic Copper Bismuth &c — —

Iron is the best and safest of all the mineral tonics It is used in a state of filings — Rust Oxide &c —

Iron becomes oxidized by the acid in the stomach and forms salts and acts by combining with the protein of sulphuretted hydrogen — The stools are rendered black by forming the gallate of iron — There are 2 oxides which are very different from each other The Red & the Black. the latter is the protoxide and the salts are formed from one or other of these Muriate Iodet. is formed by adding muriatic acid with rust of iron and then adding alcohol. — Taste is acid & astringent The color is yellowish Dose from 5 to 15 drops a large dose creates much nausea. It may be administered from the muriat of iron

Iron Tests may be separated from those of other metals & the protoxide from the peroxide by means of the magnet —

Sulp. Ferri

Sal. martis — Is prepared by dissolving sulphuric acid on iron filings. Then evaporates to dryness

The dose is ½ gr to 1 gram by long use it acts on skin and spasms of the stomach and bowels.

In small doses it is said as a tonic astringent & antilithic

The sulphate of iron entering into the composition of Copper pills

Carbonas Ferri

By dissolving Sal martis with the carbonate of soda — a mutual decomposition takes place

The sulphate of soda is formed which remains in solution.

The dose is from 5 to 50 or even 60 grains. This is an excellent & safe chalybeate

Phosphas Ferri

This is made by taking Sal martis & phosphate of soda — used in cancer.

The diseases in which the preparations of iron are chiefly indicated are debility of any kind dyspepsia chlorosis. Anaemia. Gleet cancer &c They may be used in mineral waters.

The Tincture of the muriate of iron has been much recommended in Suppression of urine.

Gold

Has been used. The oxide and the muriate the purple powder of Cassius — The medal is must employed the dose of the medal is from ij to iij grains — Of the oxide gr ½ — and Muriate gram 1/10 to 1/10 This last is better given in Solution three pills — but if we do not wish them it is better to dispense a small quantity in a small quantity of water and then powdered liquorice

Zinc

The Sulphate is used — The medal is emitt — The flowers or the oxide of Zinc is sometimes used it is a powerful emetic and sometimes acts as a cathartic & sedative the dose from grains 3 to ℈. It is much

employed in epilepsy. The Sulphat generally emitt in the dose of 10 grains gtts in solution.

Acetate of Zinc is made by taking the Sulphate of Zinc and the Acetate of Lead. each in solution. then mixing them together. The solution of the acetate of Zinc is esteemed an astringent collyrium.

Oxide of Zinc

Putty - This is principally employed as an opthalmic and frequently employed as such in unguents & collyria

Bismuth

Sub. nitrat - & Oxide -

It is prepared with nitric acid and bismuth - It is much celebrated as a tonic especially - in dyspepsia & other diseases of the stomach -

Lecture Feb 18th -

Arsenic

The metal is inert - an alloy with iron has been given to the extent of 3ij without effect but it is exceedingly dangerous

Arsenic is a grey ish metal some-
what like steel but soon tarnishes
in the air some say by the forma-
tion of the black oxyde — It is
volatile and when heated it gives
out white fumes which is the
arsenous acid — The arsenic
acid is found by digesting the
arsenous acid with nitric acid
and applying heat. the nitrogen
is given off —

Tests — By placing arsenic be-
tween two pieces of copper & adding
charcoal to take the oxygen the
mineral then fuses and alloys with
the copper & produces a white
color —

2 It may also decomposed the
metal by heating it in tube with
potash or black flux — black
flux is found with equal parts
of charcoal and potash — The
tube is to be left open at one end
or it must be loosely stopped with
cotton. the metal crystalizes in the
upper part of the tube.

3 Nitrate of silver is a good test
for the presence of arsenic

4. Nitrate of copper. produces a
green precipitate known by the
name of Scheels green but if

an alkali alone is used the precipitate is bluish

Antidotes for arsenic. no known one. magnesia has been recommended — we must give milk white of eggs or bark magnesia but first we must endeavour to evacuate the stomach ~~with~~ by a powerful emetic. and this is to be no delay our remedies must be prompt —

Oxide of Arsenic

This is quite a little more than 1/16 of a grain but says the Dr we cannot make pills containing but 1/16 of a grain of arsenic —

Fowlers Solution

Is made by boiling white oxide of arsenic and carbonate of potash. 64 grains of each in a pint of water then adding about 3i of the Spts of lavender which is used to color the mixture and give it a pleasant smell. 1 60 drops contains about 1/2 a grain of arsenic It may be given alone or with bark It is a very useful preparation in intermittent fever — It is not de- bilitating as some say it is but stimulating The Dr thinks it is

superior to bark in intermittents.

The Dr mentions the case of a Lady who was sterile and affected with intermittent fever. Arsenic was used and soon after she became pregnant. now this looks more like a stimulating than a debilitating effect. — The Dr says Arsenic may be given in any stage of intermittent fever - Arsenic in the small doses in which it is given is very easily taken by children in intermittents —

Dr Kelly says we ought to begin to give Arsenic in small doses. If it produces swelling & contraction about the mouth & salivation we have proof that the medicine is producing its specific effects on the contrary if it produces pain in the head & stomach vertigo cough &c. it should be abandoned.

Mineral Acids -

The Sulphuric is used in morbid states of the stomach it is generally given in the state of the

Elixir Vitriol or Acidum Sulphuricum Aromaticum -

it frequently succeeds when bitters and tonics have failed - It should be sucked through a quill to

prevent injury of the teeth. most the best modes of giving the bark is to add a small quantity of this water acidulated which forms a very useful acidulated drink

Muriatic Acid

Has been used in Scrofula and we find that all the salts which have been used in this disease have been muriates.

Nitric Acid has been recommended in tinea but it is inferior to the Sulphuric

Lecture Feb 19 -

Astringents —

Cullen says they are those medicines which coagulate and contract the soft solids so as to render them more dense and less in volume

It is very doubtful whether there are any medicines intitled to the name of astringents - Those medicines that stop a diarrhea have been called astringents but very improperly they do not perform this office by causing contraction but by diminishing discharges

Alcohol has not one item of

astringency but acts by absorbing acids — Anotther set of medicines have been called astringents as thoose by direct application diminish inflammation as alum white vitriol &c — They are supposed to act by contracting the vessels The effect cannot be explained in this way. Iron has been called astringent but it is only tonic Dr Cullen considers that astringents operate on the bowels chemically he illustrates it by tanning but this will not go down with Dr Cope — If we make a strong decoction of Bark and put one hand in it the other into cold water — a much larger quantity of perspiration will come from the hand which was in the warm decoction hence the pores are not contracted & from this the Dr thinks we have no astringents and the class should be discarded but we enumerate a few as they cannot be located any where else

Skin —

The inhalated juice — These have been used but they do but little in this medical properties The operations are known somewhat

decoct — It was first used by Rothergill — It consists principally of tannin much more soluble in hot than in cold water and hence when cool it precipitates. Soluble in alcohol. Solutions of it precipitate gelatin. Silver, mercury and iron sulphate of iron &

It is not proper in active hemorrhage. in fluor albus & debility it is used — The dose is from ℈i to ℈ß

Tr Kino. 2ij to a pint of diluted alcohol —

Uva Japonica is obtained from the Nimuda Catechu and some other species of mimosa in Bengal — It consists principally of tannin and is useful in all cases where astringents are demanded as hemorrhages fluor albus &c —

It is less stimulating than Kino The dose is ℈i to ℈ij — It may be given in tincture made by taking ℈ij and dissolving it in a pint of alcohol The dose is ℈i —

℞ Catechu ℥iv
Alum ℥i and ℥viij
Ol. Oil ℥x.

useful application to ulcers —

Queens Cotton.

Oak Bark. has been much employed as an astringent medicine both internally & externally
The Black oak bark appears to be preferred Dr Barton and the Spanish oak The Quercus Rubrum Montanum
It is often used as a gargle to sore throat alum is sometimes added but it does not much increase its power — It has been used in intermittents. does it say any thing during the intermission but it is not to be compared to the peruvian bark — It is said that accord possess the same astringency
What the Dr has said of this substance will apply to the
Galls. & the only mention of them are in pills in the shape of an ointment & in gleet & as an injection
These are the most powerful articles of the vegitable class many others might be mentioned but it is superfluous — one of the most powerful known is our own pecan — Acids & opium can be used as astringents —

Alum -

Sulph. Sulphat of Alumina & Potash.
This is obtained by adding a small portion of Sulphuric acid to clay and Potash - in a few days you will have crystals of Alum.
The acid it is used and the Dr says all the properties of this substance belongs to the acid of Sulphuric acid. It does not contain any of the astringent principal usually termed the Alum it is and it is said to move the bowels gently and without pain.

Burnt Alum destroys only in the loss of its water of crystalization then if put in solution even it fills it is brought back to the same state - It is chiefly used as an application to fungous ulcers as a mild escrotic

It has been used in intermittents and Lind says it is the most powerful remedy that he has used in this disease except the bark

Acetat of Plumbi
Sugar of Lead -

The Dr does not believe that the super acetate does exist but he says the sub acetate does -

If we take the oxide of lead and boil with vinigar we have the sugar of lead — The vapour of the vinigar is decomposed and it unites with the oxyd —

Sugar of lead is used externally. Those persons who are engaged in the preparation of lead are often afflicted with Colica Pictonum called dry belly ache. In the neighbourhood of the lead mines it is said that animals become affected. It has been called Painters colic. this may be prevented by using olive oil recommended by Dr Franklin

If injected into the veins it destroys life in a very short time a pint injected 3 grains into a vein of a dog and it produced death in other cases a dog was made to swallow several drachms without much effect. — When taken into the stomach it does not produce such bad symptoms as might be expected — If we wish to produce an active effect we give it in a large dose.

In chronic cases we ought not to be timid The dose is from 2 to 4 grains Dog 1/2 to 1 grains but it has

bean given to the amount of a ℥i in a day — Application —

It is useful in intermittents. Dr Barton combined it with rhubarb and calomel but the Dr is not favourable to its use.

Dr Rush mentions several cases of epilepsy cured by its use.

The small doses in which it is given now are not so effectual as the large ones given by the ancients. Its empl. It has been used in hooping cough — Dr Hunter used it ~~Statoms~~ — The Dr confesses that he has no confidence in Digitalis & lead — tetanus

This medicine fell in the estimation for many but is now revived & stands higher than it did formerly —

It has been used in the diseases of the bowels in cholera infantum It has been recommended by Dr Barton — In hemorrhages from the pulmonary vessels it is useful. & Thomson says it is a specific. It diminishes the frequency and force of the pulse — In diabetes, dysentery and hemorrhage of red blood it is reported to in combination with opium and Spanish Dr Barton gave it with martial tartrate

Nutrientia –

The Dr- next goes on and treats of the third division of the Materia medica viz. the nutrientia this comprehends dietetics –

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